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# **Mississippi Wetland Management District** *including:*

**Dahomey NWR  
and Tallahatchie  
NWR**

## **Annual Narrative**

**Grenada, Mississippi**

**Calendar Year  
1997**

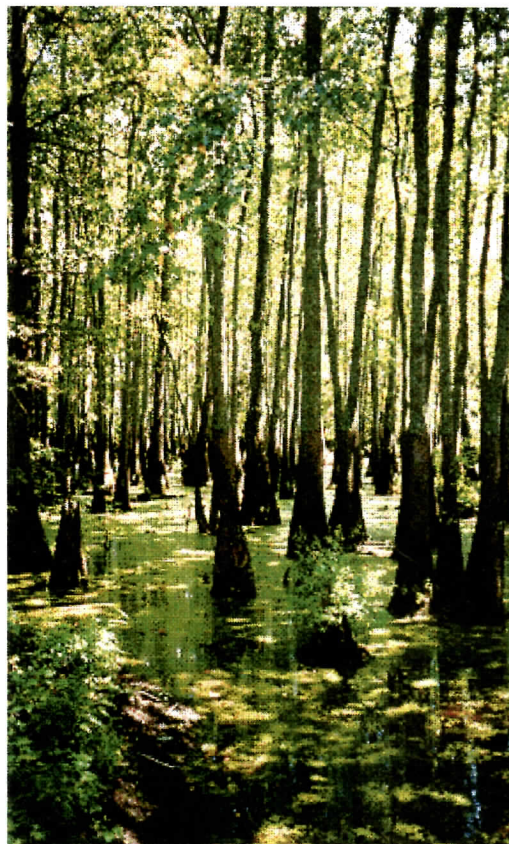


Photo 1. A backwater portion of Tippecanoe Bayou. Photo by Stephen Gard.

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*Refuge Manager*

*Date*

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*Date*

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*Geographic Assistant*

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*Regional Director*

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## INTRODUCTION

The Mississippi Wetland Management District Complex (MWMD) was established in Grenada, Mississippi in 1989, primarily to manage the increased land base being acquired through the transfer of **FmHA Lands** to the U.S. Fish and Wildlife Service (the Service) by the Farmers Home Administration (FmHA) now the Farm Services Administration and the acquisition of **Dahomey and Tallahatchie National Wildlife Refuges** (NWR). At that time, there were no other stations in an appropriate geographical location to manage these lands. After several management decisions and boundary changes, the final geographical boundaries contained 26 counties in northern Mississippi (Figure 1).

**FmHA Lands** are properties in which the United States Department of Agriculture (USDA) foreclosed on, or the owner voluntarily deeded his land back to the USDA due to lack of payment on loans. The original owner was given the right to buy back his land, but Executive Order 11990 required the wetlands on these properties to be set aside or protected. Most of the properties which the original owners did not buy back, were transferred fee title to the Service for management. Numerous other properties were repurchased by the original owner, but now had restrictive USDA easements on them. The easements on these properties were also transferred to the Service for management as units of the National Wildlife Refuge System. These **FmHA Lands** range from 1 acres to over a 1,000 acres in size, and were transferred in three categories:

- 1) **Fee Title Properties:** These properties are now considered public land and are managed as units of the National Wildlife Refuge System.
- 2) **Conservation Easements:** The ownership of these properties remains in the private sector, but the Service retained most management rights. For example, these lands are no longer farmed, and the Service is allowed to mow, install water control structures, build levees, plant seedlings and acorns, and manage water levels etc.
- 3) **Floodplain Easements:** The least restrictive of the two easements. Primary ownership remains in the private sector with restrictions which prohibit degradation of existing floodplain values. In most cases the land owner is allowed to farm acreage that was previously in cultivation, but the easement prevents further draining or clearing of the land.

In 1989, there were four recorded easements for a total land base of 1,070 acres. As of 1997 the MWMD manages two traditional **National Wildlife Refuges** totaling 15,842 fee acres, 46 **FmHA Fee Title** transfers totaling 10,161 acres, 46 **Conservation Easements** totaling 4,036 acres, and 15 **Floodplain Easements** totaling 1,714 acres (Figure 2 and Table 1). The MWMD now manages 107 FMHA tracts and two National Wildlife Refuges totaling 31,753 acres.



The majority of the lands in the MWMD are within the Mississippi River Alluvial Valley where topography is relatively flat and land is made up of heavy clay and hydric soils which have been subject to extensive clearing and drainage efforts. Originally these lands were bottomland hardwood forested wetlands. These forests were made up of species such as bald cypress, water oak, Tupelo gum, red maple, sweet gum, cottonwood, black willow and cane. Habitat restoration, enhancing existing wetlands, and maintaining projects already developed are the major focus of the MWMD. The MWMD complex has grown rapidly and is an outstanding waterfowl area.

MWMD has also taken part in planning and constructing over 100 "Partners Projects" totaling 20,000+ acres, 8 Army Corps of Engineers (ACOE)/Fish and Wildlife Service habitat development projects totaling 10,380 acres, a U.S. Forest Service/Fish and Wildlife Service habitat development project consisting of 250 acres, a State Wildlife Management Area/Fish and Wildlife Service project totaling 250 acres, and one School Board lease totaling 260 acres.

**Fifteen Mississippi Counties with FmHA Properties  
Managed by U.S. Fish and Wildlife Service  
Mississippi Wetland Management District (MWMD)**

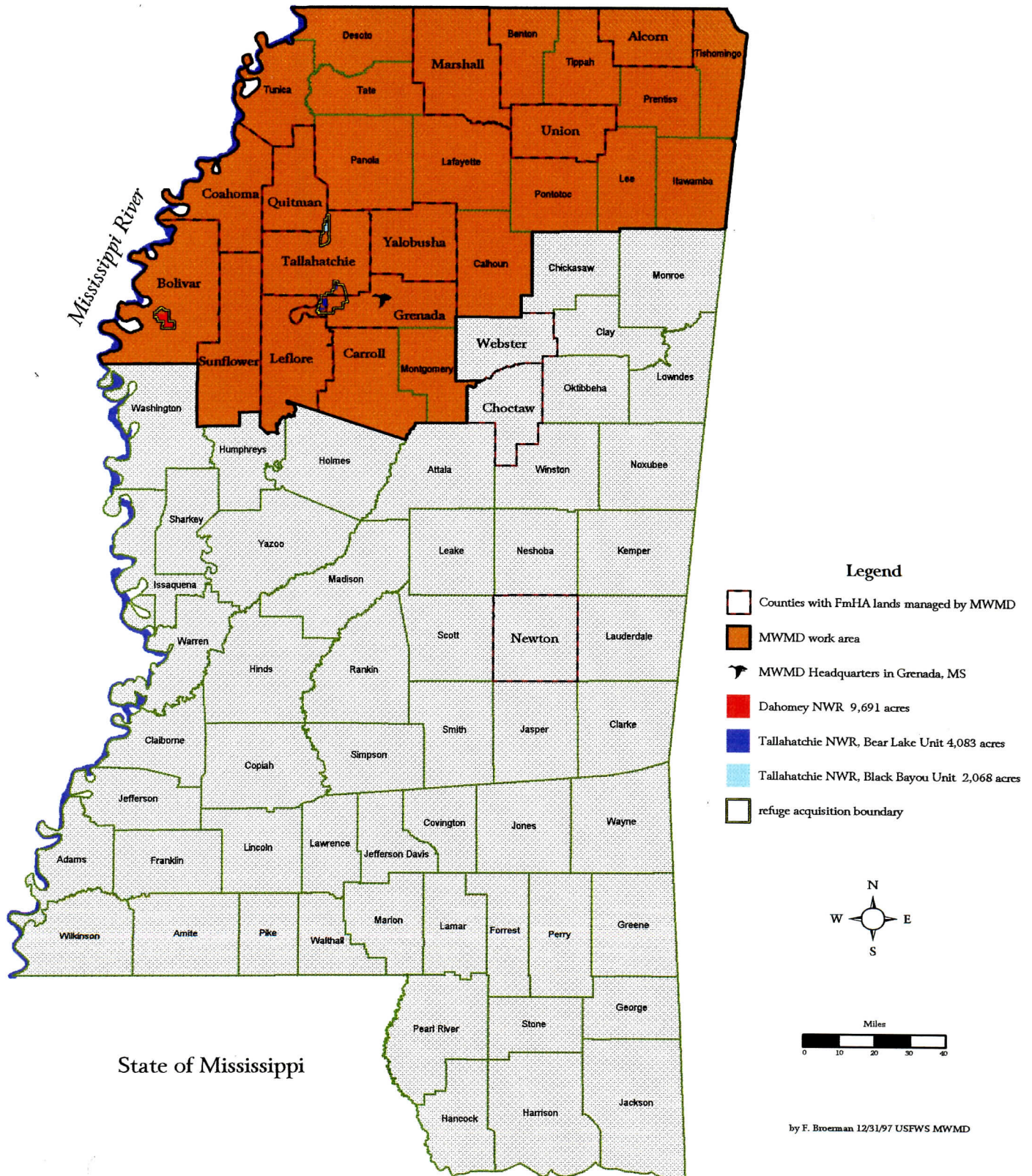


Figure 1. MWMD manages FmHA Properties in fifteen Mississippi Counties.



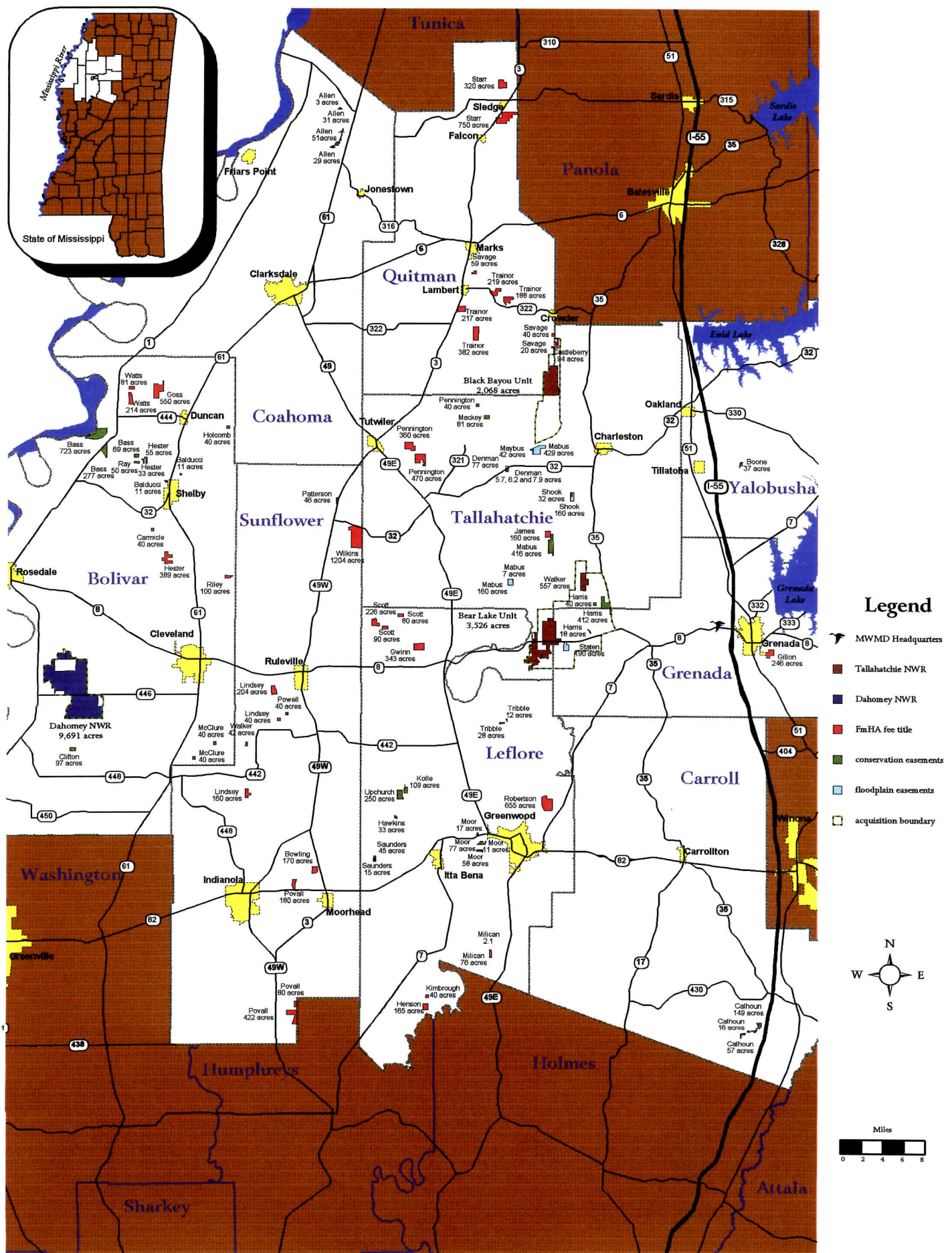


Figure 2. The nine counties which contain most of the properties administered by MWMD. Six counties are not depicted.



REFUGE PROPERTIES						
NAME	COUNTY	ACRES	ESTATE	15' QUAD	7.5' QUAD	LEGAL DESCRIPTION
Dahomey NWR						
Allen Gray Estate/TNC (1993)	BOLIVAR	9,269	Fee Title	CHOCTAW, PACE	BEULAH, LOBDELL	T22N R7W SEC. 17, 19, 22, 27-34; T21N R7W SEC. 1-4, 9-12
MS Dept of Trans. (DOT) (1991)	BOLIVAR	162	Fee Title	CHOCTAW	LOBDELL	T22N R7W SEC. 34
West Boliver Co. School Board	BOLIVAR	260	Lease	CHOCTAW, PACE	BEULAH, LOBDELL	T22N R7W SEC. 16
DAHOMY NWR		9,691	TOTAL ACRES			
TALLAHATCHIE NWR, BEAR LAKE UNIT						
Walker Tract (1991)	TALLAHATCHIE	557	Fee Title	PHILIPP	CASCILLA	T23N R2E SEC. 21, 22, 28
John Whitten (1992)	GRENADA, TALLAHATCHIE	509	Fee Title	PHILIPP	PHILIPP	T22N R1E SEC. 13, 24; T22N R2E SEC. 18
John Hancock (1992)	GRENADA, TALLAHATCHIE	1,361	Fee Title	PHILIPP	PHILIPP	T22N R1E SEC. 1, 12, 13; T22N R2E SEC. 7, 18
Chicago Mills/DOT (1997)	TALLAHATCHIE	1,656	Fee Title	GREENWOOD, PHILIPP	MONEY, PHILIPP	T22N R1E SEC. 14, 22-27, 34
TALLAHATCHIE NWR, BEAR LAKE UNIT		4,083	TOTAL ACRES (Fee Title only)			
TALLAHATCHIE NWR , BLACK BAYOU UNIT						
Travelers Insurance (1991)	QUITMAN, TALLAHATCHIE	1,730	Fee Title	CROWDER	FISH HOOK LAKE	T26N R2E SEC. 30, 31; T26N R1E SEC. 25, 36
Shiele Tract (1996)	TALLAHATCHIE	40	Fee Title	CROWDER	CROWDER	T26N R2E SEC. 7
Duck Ponds Inc. (1996)	QUITMAN, TALLAHATCHIE	298	Fee Title	CROWDER	FISH HOOK LAKE	T26N R2E SEC. 19; T26N R1E SEC. 24
TALLAHATCHIE NWR , BLACK BAYOU UNIT		2,068	TOTAL ACRES			
FmHA FEE TITLE PROPERTIES						
NAME	COUNTY	ACRES	ESTATE	15' QUAD	7.5' QUAD	LEGAL DESCRIPTION
CARMICLE	BOLIVAR	40	Fee Title	PACE	SHELBY	T24N R6W SEC. 26
GOSS	BOLIVAR	550	Fee Title	MELLWOOD	ROUND LAKE	T26N R5W SEC. 35, 36; T25N R5W SEC. 2
HESTER, T. III	BOLIVAR	389	Fee Title	PACE	PACE	T23N R6W SEC. 1
HOLCOMB, D.	BOLIVAR	40	Fee Title	CLARKSDALE	DUNCAN	T25N R5W SEC. 13
RAY	BOLIVAR	50	Fee Title	PACE	SHELBY	T25N R6W SEC. 33
RILEY	BOLIVAR	100	Fee Title	MOUND BAYOU	MERIGOLD	T23N R5W SEC. 13
WATTS, J.	BOLIVAR	214	Fee Title	MELLWOOD	ROUND LAKE	T25N R6W SEC. 4
WATTS, J.	BOLIVAR	81	Fee Title	MELLWOOD	ROUND LAKE	T26N R6W SEC. 33
GILLON	GRENADA	246	Fee Title	GRENADA	GRENADA	T22N R5E SEC. 21
GWIN	LEFLORE	343	Fee Title	SUMNER	GLENDORE	T22N R2W SEC. 24, 13
HENSON	LEFLORE	165	Fee Title	MOSSY LAKE	MONTGOMERY	T17N R1W SEC. 19
KIMBROUGH, A.M.	LEFLORE	40	Fee Title	MOSSY LAKE	MONTGOMERY	T17N R1W SEC. 18
MILLICAN, H.	LEFLORE	2.1	Fee Title	SEVEN PINE	SIDON	T18N R1E SEC. 31??
MILLICAN, H.	LEFLORE	76	Fee Title	SEVEN PINE	SIDON	T18N R1E SEC. 31??
ROBERTSON	LEFLORE	655	Fee Title	GREENWOOD	GREENWOOD	T20N R1E SEC. 25, 24
SCOTT	LEFLORE	226	Fee Title	SUMNER	BROOKS	T22N R2W SEC. 8
SCOTT	LEFLORE	80	Fee Title	SUMNER	BROOKS	T22N R2W SEC. 3
SCOTT	LEFLORE	90	Fee Title	SUMNER	BROOKS	T22N R2W SEC. 9
SMITH, E.	MARSHALL	232	Fee Title	POTTS CAMP	MALONE	T5S R2W SEC. 28, 29
WHALEY	MARSHALL	437	Fee Title	POTTS CAMP	BETHLEHEM	T6S R1W SEC. 6, 7; T6S R2W SEC. 1
SAVAGE, E.	QUITMAN	59	Fee Title	TUTWILER	LAMBERT	T27N R1W SEC. 11
SAVAGE, P.	QUITMAN	40	Fee Title	CROWDER	CROWDER	T26N R1E SEC. 1
SAVAGE, P.	QUITMAN	20	Fee Title	CROWDER	CROWDER	T26N R1E SEC. 12
STARR, R.	QUITMAN	750	Fee Title	SLEDGE	GREENSHAW SOUTH	T8S R10W SEC. 12
STARR, R.	QUITMAN	320	Fee Title	SLEDGE	GREENSHAW SOUTH	T7S R10W SEC. 23
TRAINOR	QUITMAN	382	Fee Title	TUTWILER	LAMBERT	T26N R1W SEC. 11, 2
TRAINOR	QUITMAN	219	Fee Title	CROWDER	CROWDER	T27N R1E SEC. 19, 20
TRAINOR	QUITMAN	188	Fee Title	CROWDER	CROWDER	T27N R1E SEC. 20, 29
TRAINOR	QUITMAN	217	Fee Title	TUTWILER	LAMBERT	T27N R1W SEC. 27
BOWLING	SUNFLOWER	170	Fee Title	BAIRD	MOOREHEAD	T19N R3W SEC. 29
LINDSEY, L.	SUNFLOWER	160	Fee Title	CLEVELAND	BOYER	T20N R4W SEC. 17
LINDSEY, L.	SUNFLOWER	40	Fee Title	CLEVELAND	RULEVILLE	T21N R4W SEC. 14
LINDSEY, L.	SUNFLOWER	204	Fee Title	CLEVELAND	RULEVILLE	T22N R4W SEC. 3
POVALL	SUNFLOWER	180	Fee Title	BAIRD	MOOREHEAD	T19N R4W SEC. 25
POVALL	SUNFLOWER	422	Fee Title	BAIRD	INVERNESS	T17N R4W SEC. 25, 24
POVALL	SUNFLOWER	80	Fee Title	BAIRD	INVERNESS	T17N R4W SEC. 13, 18
WALKER	SUNFLOWER	42	Fee Title	CLEVELAND	CLEVELAND	T21N R4W SEC. 29
WHITTEN/PATTERSON	SUNFLOWER	46	Fee Title	SUMNER	ROME	T24N R3W SEC. 22, 15
WILKINS	SUNFLOWER	1203.6	Fee Title	SUMNER	ROME	T24N R3W SEC. 36, 35; T23N R3W SEC. 1
CASTLEBERRY	TALLAHATCHIE	94	Fee Title	CROWDER	CROWDER	T26N R2E SEC. 7
JAMES	TALLAHATCHIE	160	Fee Title	PHILLIP	TIPPO	T24N R1E SEC. 36
PENNINGTON	TALLAHATCHIE	470	Fee Title	SUMNER	WEBB	T25N R2W SEC. 36
PENNINGTON	TALLAHATCHIE	360	Fee Title	TUTWILER	VANCE	T25N R2W SEC. 26
PENNINGTON	TALLAHATCHIE	40	Fee Title	TUTWILER	VANCE	T25N R1W SEC. 2
FOOSHEE	UNION	104	Fee Title	NEW ALBANY	NEW ALBANY	T7S R2E SEC. 32
FOOSHEE	UNION	134	Fee Title	NEW ALBANY	NEW ALBANY	T7S R2E SEC. 32
46 FEE TITLE PROPERTIES IN 8 COUNTIES		10,161	ACRES			

Table 1. Properties managed by Mississippi Wetland Management District.



FmHA CONSERVATION EASEMENTS						
NAME	COUNTY	ACRES	ESTATE	15' QUAD	7.5' QUAD	LEGAL DESCRIPTION
TALLEY/TURNER	ALCORN	7.5	Conservation Easement	CORINTH	CORINTH	T1S R6E SEC.35
BALDUCCI	BOLIVAR	11.7	Conservation Easement	MOUND BAYOU	MOUND BAYOU	T24N R5W SEC. 6
BALDUCCI	BOLIVAR	11.5	Conservation Easement	PACE	SHELBY	T24N R6W SEC. 1
BASS, B.H.	BOLIVAR	69	Conservation Easement	PACE	SHELBY	T25N R6W SEC. 33
BASS, B.H.	BOLIVAR	277	Conservation Easement	MELLWOOD	LACONIA	T25N R7W SEC. 36, 25
BASS, B.H.	BOLIVAR	723.4	Conservation Easement	MELLWOOD	LACONIA	T25N R7W SEC. 23, 24
CLIFTON, R.	BOLIVAR	97	Conservation Easement	CHOCTAW	LOBDELL	T21N R7W SEC. 28
HESTER, T. JR.	BOLIVAR	55	Conservation Easement	PACE	SHELBY	T25N R6W SEC. 34
HESTER, T. JR.	BOLIVAR	35	Conservation Easement	PACE	SHELBY	T25N R6W SEC. 34
McCLURE, J.	BOLIVAR	40	Conservation Easement	CLEVELAND	CLEVELAND	T21N R4W SEC. 26
McCLURE, J.	BOLIVAR	40	Conservation Easement	CLEVELAND	CLEVELAND	T21N R5W SEC. 33
CALHOUN/DANCE	CARROLL	149	Conservation Easement	COILA	PEACHAHALA CREEK	T17N R5E SEC. 32, 31
CALHOUN/DANCE	CARROLL	57	Conservation Easement	COILA	PEACHAHALA CREEK	T16N R5E SEC. 6
CALHOUN/DANCE	CARROLL	16	Conservation Easement	COILA	PEACHAHALA CREEK	T17N R5E SEC. 31
ALLEN	COAHOMA	4	Conservation Easement	MARKS	LULA	T30N R3W SEC. 34
ALLEN	COAHOMA	51.6	Conservation Easement	MARKS	LULA	T29N R3W SEC. 15, 10
ALLEN	COAHOMA	31	Conservation Easement	MARKS	LULA	T29N R3W SEC. 10, 11
ALLEN	COAHOMA	29.9	Conservation Easement	MARKS, FARRELL	LULA	T29N R3W SEC. 15
STATEN	GRENADA	74	Conservation Easement	PHILIPP	CASCILLA	T22N R2E SEC. 17, 20
HARRIS, W.L.	GRENADA	18	Conservation Easement	PHILIPP	CASCILLA	T22N R2E SEC. 10
MOOR, R.B.	LEFLORE	10.68	Conservation Easement	GREENWOOD		T R SEC.
MOOR, R.B.	LEFLORE	77	Conservation Easement	SCHLATER, GREENW.		T R SEC.
MOOR, R.B.	LEFLORE	17	Conservation Easement	SCHLATER	SHELL MOUND	T19N R1W SEC. 12
MOOR, R.B.	LEFLORE	58	Conservation Easement	SCHLATER		T R SEC.
TRIBBLE	LEFLORE	12	Conservation Easement	GREENWOOD	MONEY	T21N R1E SEC. 20 ???
TRIBBLE	LEFLORE	28	Conservation Easement	GREENWOOD	MONEY	T21N R1E SEC. 20
HAWKINS	LEFLORE	33	Conservation Easement	SCHLATER	BEAR CUT BAYOU	T20N R2W SEC. 34
KOLLEE, R	LEFLORE	109	Conservation Easement	SCHLATER	SHELL MOUND	T20N R2W SEC. 23
						T20N R2W SEC. 22, 26, 27
PRESTRIDGE/UPCHURCH	LEFLORE	250	Conservation Easement	SCHLATER	BEAR CUT BAYOU	
SAUNDERS	LEFLORE	15	Conservation Easement	MOSSY LK., SCHLAT.	COLONY TOWN	T19N R2W SEC. 20
SAUNDERS	LEFLORE	45	Conservation Easement	MOSSY LK., SCHLAT.	COLONY TOWN	T19N R2W SEC. 20
TRAINOR, E. L.	QUITMAN	6	Conservation Easement	CROWDER	CROWDER	T27N R1W SEC. 12, 13
POWELL	SUNFLOWER	40	Conservation Easement	CLEVELAND	RULEVILLE	T22N R6W SEC. 33
DAVIS, HIRAM	TALLAHATCHIE	17	Conservation Easement	PHILIPP		T R SEC.
DENMAN	TALLAHATCHIE	7.9	Conservation Easement	PHILIPP	TIPPO	T24N R1E SEC. 5
DENMAN	TALLAHATCHIE	5.7	Conservation Easement	PHILIPP	TIPPO	T24N R1E SEC. 5
DENMAN	TALLAHATCHIE	6.2	Conservation Easement	PHILIPP	TIPPO	T24N R1E SEC. 5
						T23N R2E SEC. 35, 36; T22N R2E SEC. 1
HARRIS, W.L.	TALLAHATCHIE	329	Conservation Easement	PHILIPP	CASCILLA	T23N R2E SEC. 34
HARRIS, W.L.	TALLAHATCHIE	40	Conservation Easement	PHILIPP	CASCILLA	T23N R2E SEC. 34
MABUS	TALLAHATCHIE	42	Conservation Easement	CROWDER	FISH HOOK LAKE	T25N R1E SEC. 27, 26
						T24N R1E SEC. 36; T23N R1E SEC. 1, 12
MABUS	TALLAHATCHIE	415	Conservation Easement	PHILLIP	TIPPO, PHILIPP SW	T23N R1E SEC. 21
MABUS	TALLAHATCHIE	7	Conservation Easement	PHILLIP	PHILIPP SW	
MACKEY	TALLAHATCHIE	81	Conservation Easement	TUTWILER	VANCE	T25N R1W SEC. 12
SHOOK	TALLAHATCHIE	35	Conservation Easement	PHILIPP	PAYNES	T24N R2E SEC. 17
						T19N R10E SEC. 9, 10 & 15
HARRIS, W.L.	WEBS., CHOC.	515	Conservation Easement	not available	SAPA	
HOLLAND/BOONE	YALOBUSHA	37	Conservation Easement	GRENADA	SCOBIEY	T25N R4W SEC.36
46 CONSERVATION EASEMENTS IN 12 COUNTIES		4,036 ACRES				

FmHA FLOODPLAIN EASEMENTS						
NAME	COUNTY	ACRES	ESTATE	15' QUAD	7.5' QUAD	LEGAL DESCRIPTION
BRADY/SAFLEY	COAHOMA	12.9	Floodplain Easement	MOUND BAYOU	BALTZER	T25N R3W SEC. 32
STATEN	GRENADA	190	Floodplain Easement	PHILIPP	CASCILLA	T22N R2E SEC. 17, 20
KOLLEE, R	LEFLORE	191	Floodplain Easement	SCHLATER	SHELL MOUND	T20N R2W SEC. 23
McCLATCHY	MARSHALL	124	Floodplain Easement	TYRO	MARIANNA	T4S R3W SEC. 22
DEARING/GIBBON	NEWTON	7.5	Floodplain Easement	not available	HERO	T R SEC.
TRAINOR, E. L.	QUITMAN	3.12	Floodplain Easement	TUTWILER	LAMBERT	T27N R1W SEC. 13, 14
TRAINOR, E. L.	QUITMAN	15.74	Floodplain Easement	CROWDER, TUTWIL.	CROWDER, LAMBERT	T27N R1W SEC. 13
POWELL	SUNFLOWER	1	Floodplain Easement	CLEVELAND	RULEVILLE	T21N R4W SEC. 14
POWELL	SUNFLOWER	82	Floodplain Easement	CLEVELAND		T R SEC.
POWELL	SUNFLOWER	21	Floodplain Easement	CLEVELAND		T R SEC.
DAVIS, HIRAM	TALLAHATCHIE	240	Floodplain Easement	PHILIPP		T R SEC.
DENMAN	TALLAHATCHIE	77	Floodplain Easement	PHILIPP	TIPPO	T24N R1E SEC. 5
MABUS	TALLAHATCHIE	429	Floodplain Easement	CROWDER	FISH HOOK LAKE	T25N R1E SEC. 26, 25
MABUS	TALLAHATCHIE	160	Floodplain Easement	PHILLIP	PHILIPP SW	T23N R1E SEC. 20, 21
SHOOK	TALLAHATCHIE	160	Floodplain Easement	PHILIPP	PAYNES	T24N R2E SEC. 17
15 FLOODPLAIN EASEMENTS IN 8 COUNTIES		1,714 ACRES				

Table 1. Properties managed by Mississippi Wetland Management District.

## **Dahomey National Wildlife Refuge**

**Dahomey NWR** is located in Bolivar county in the west part of the MWMD near the Mississippi River (Figures 1 and 3). In 1990, the Nature Conservancy purchased 9,269 acres from the Allen Gray Estate and leased the land back to the Fish and Wildlife Service (the Service) for management. In 1993, the Service completed acquisition of Nature Conservancy lands. One additional 162 acre tract was purchased by the Mississippi Department of Transportation (DOT) and turned over to the Service in 1991. A 260 acre 16<sup>th</sup> section tract is leased from the West Bolivar School board bringing the land base total to 9,691 acres.

Approximately 7,847 of Dahomey's 9,691 acres is a bottomland hardwood forest, and 1,066 acres is farmed by coop farmers who raise rice and soybeans. Approximately 778 acres of the refuge is either fallow fields or has recently been reforested with bottomland hardwood seedlings and acorns. Staffing and management began on a limited basis in 1991.

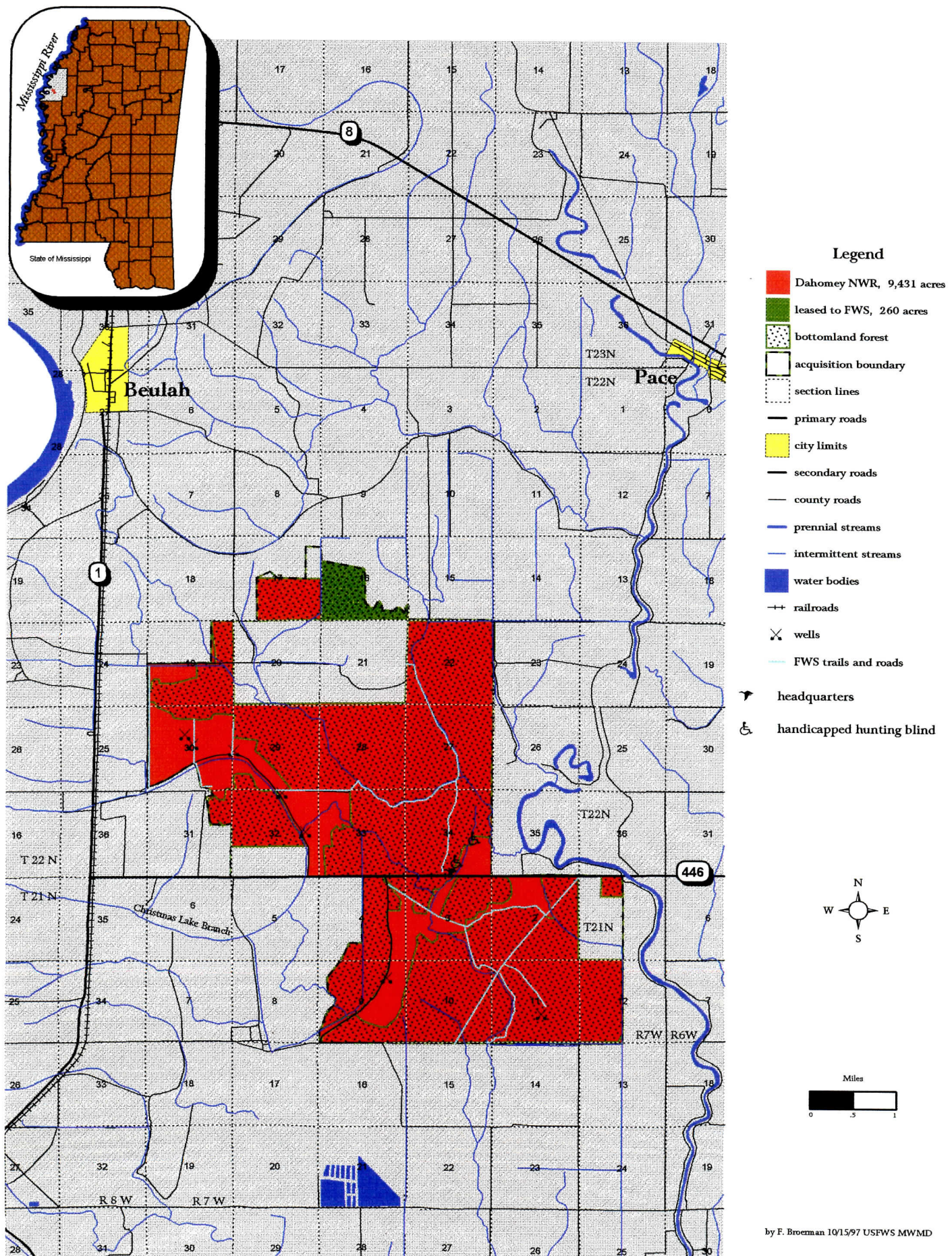
Dahomey's woods were last cut in the late 1960's and were badly damaged by a February, 1994, ice storm. With the crowns of most large trees damaged, understory and ground vegetation was released and many areas of the forest are almost impenetrable. Most of Dahomey's woodlands are wet from November through May from ponded rainfall in shallow depression areas.

Migratory waterfowl utilize the agricultural areas and a green timber reservoir (GTR) in winter, while deer and wild turkey are common in the forest interior and around the edges of the agricultural fields. Flocks of twenty or more turkey are seen regularly at Dahomey in fall and winter. In the winter, six species of woodpeckers can be seen along with barred owl, great-horned owl and eastern screech-owl. In the summer months, neotropical migrants such as Mississippi kite, summer tanager, ruby-throated hummingbird, wood thrush, yellow-billed cuckoo, blue-grey gnatcatcher, great-crested flycatcher, eastern wood-pewee, Acadian flycatcher, hooded warbler, prothonotary warbler, Swainson's warbler, white-eyed vireo and red-eyed vireo can be heard and seen. Dahomey is truly a island of forested wetlands in a sea of agricultural land and represents a vestige of natural habitats in the northwestern part of the state.



# DAHOMEY NATIONAL WILDLIFE REFUGE

## BOLIVAR COUNTY, MISSISSIPPI





## Tallahatchie National Wildlife Refuge

**Tallahatchie NWR** consists of the **Bear Lake** and **Black Bayou Units** (Figures 2, 4 and 5). These two units are 15 miles apart, (directly north or south of each other) and lie in the Mississippi River Alluvial Valley (the Delta).

The **Bear Lake Unit** is a patchwork of cultivated farmlands, old fields, and small scattered tracts of bottomland hardwood forest bisected by the meandering Tipito Bayou which is its center piece. The unit consists of 4,083 acres of fee title properties, 544 acres of conservation easements and 190 acres of floodplain easements (Figure 4). A large portion of the Bear Lake Unit floods each winter and holds large concentrations of waterfowl. The unit also supports a very healthy deer herd. Wood ducks abound here, and eastern screech owl, barred owl, great-horned owl, loggerhead shrikes and red-tailed hawks are common year round residents. Blue grosbeaks, dickcissels and painted buntings can be seen during the summer. Most of the Unit's agriculture land is devoted to raising soybeans and rice. Just south of the Bear Lake Unit lies the 9,483 acre Malmaison Wildlife Management Area which is managed by Mississippi Department of Wildlife, Fisheries and Parks.

The northern **Black Bayou Unit** of Tallahatchie NWR consists of 2,069 acres of fee title lands most of which is either abandoned old fields or farmlands where soybeans and milo are grown (Figure 5.) These fields are of low poorly drained soils which flood most winters. Thousands of waterfowl use this area during the flooding.

A 495 acre portion of the Black Bayou Unit contains twenty-five ponds which were previously managed as a commercial catfish operation. These ponds range in size from 9 to 20 acres and are now managed for shorebirds, ducks and marsh birds. Twenty-nine species of shorebirds have been recorded here (Table 2). Fourteen of these are seen fairly commonly at the ponds from March through June and then again from July through October. Peregrine falcon, least tern, black tern and wood stork occasionally pass through the refuge in migration. Bald eagles are seen regularly in winter and occasionally a golden eagle is seen. Marsh birds such as sedge wren, marsh wren, common yellowthroat, swamp sparrow, sora, and king rail are regularly seen or heard at the Black Bayou Unit. American bittern, least bittern, Lincoln's sparrow, LeConte's sparrow, and Virginia rail are seen less commonly. Beaver, bobcat, coyote and mink occur on the refuge. Mississippi kites, dickcissels, warbling vireos and painted buntings can be seen on the refuge during the summer. During this season it is not uncommon to see a couple hundred egrets, ibis and herons feeding in the ponds. Waders such as black-crowned night-heron, yellow-crowned night-heron, white ibis and tricolored heron are occasionally seen. In the evenings of August and September large flocks of wading birds, after having spent the day foraging at scattered locations in the delta, can be seen flying into roost in a few of the ponds which are filled with willow. Least flycatcher has nested here during the summers of 1996 and 1997, which is the only location where this species is known to nest in Mississippi.



**TALLAHATCHIE NATIONAL WILDLIFE REFUGE**  
**BEAR LAKE UNIT**  
**GRENADA, AND TALLAHATCHIE COUNTIES, MISSISSIPPI**

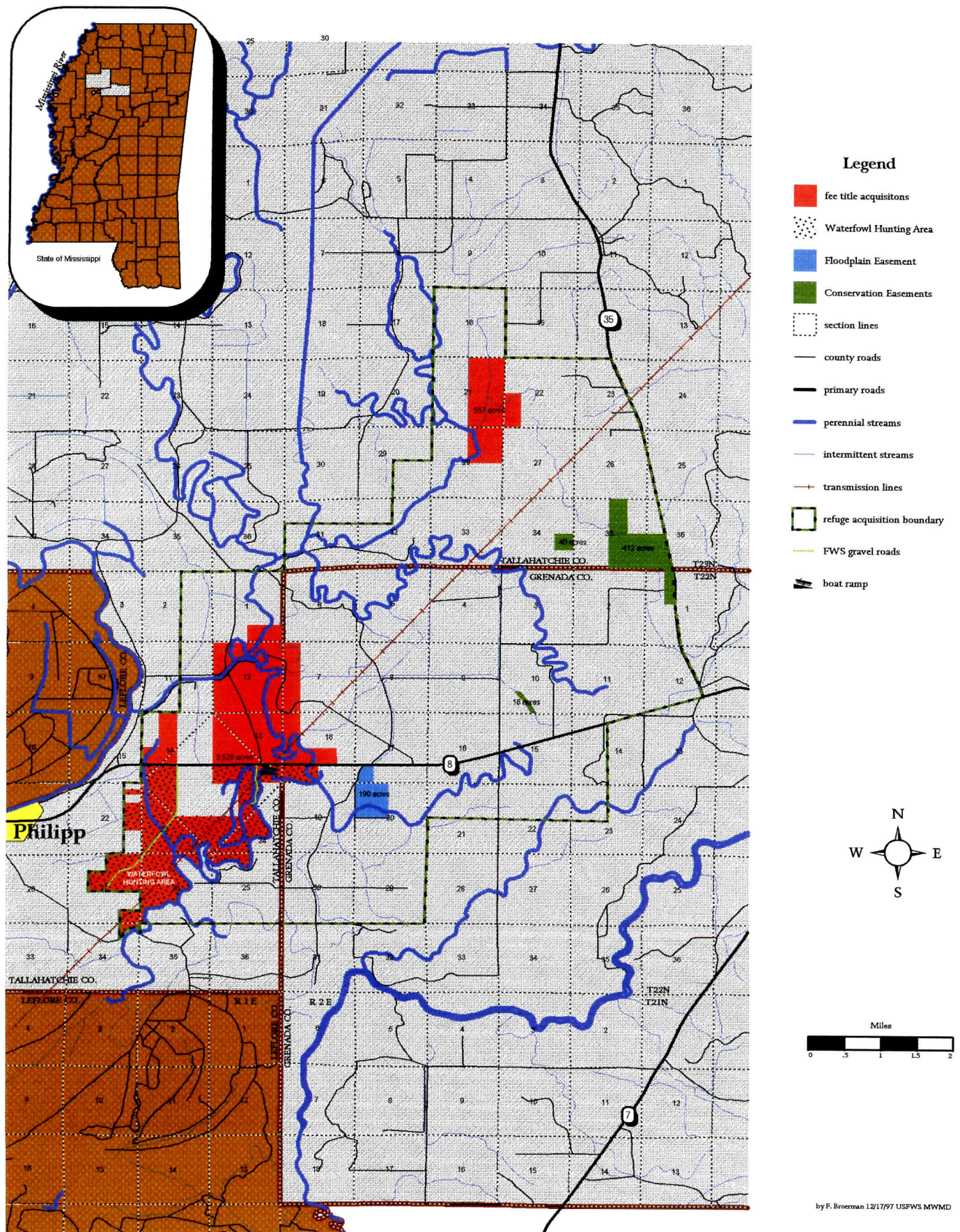


Figure 4. Bear Lake Unit of Tallahatchie National Wildlife Refuge.



### and nearby FmHA Properties

State of Mississippi

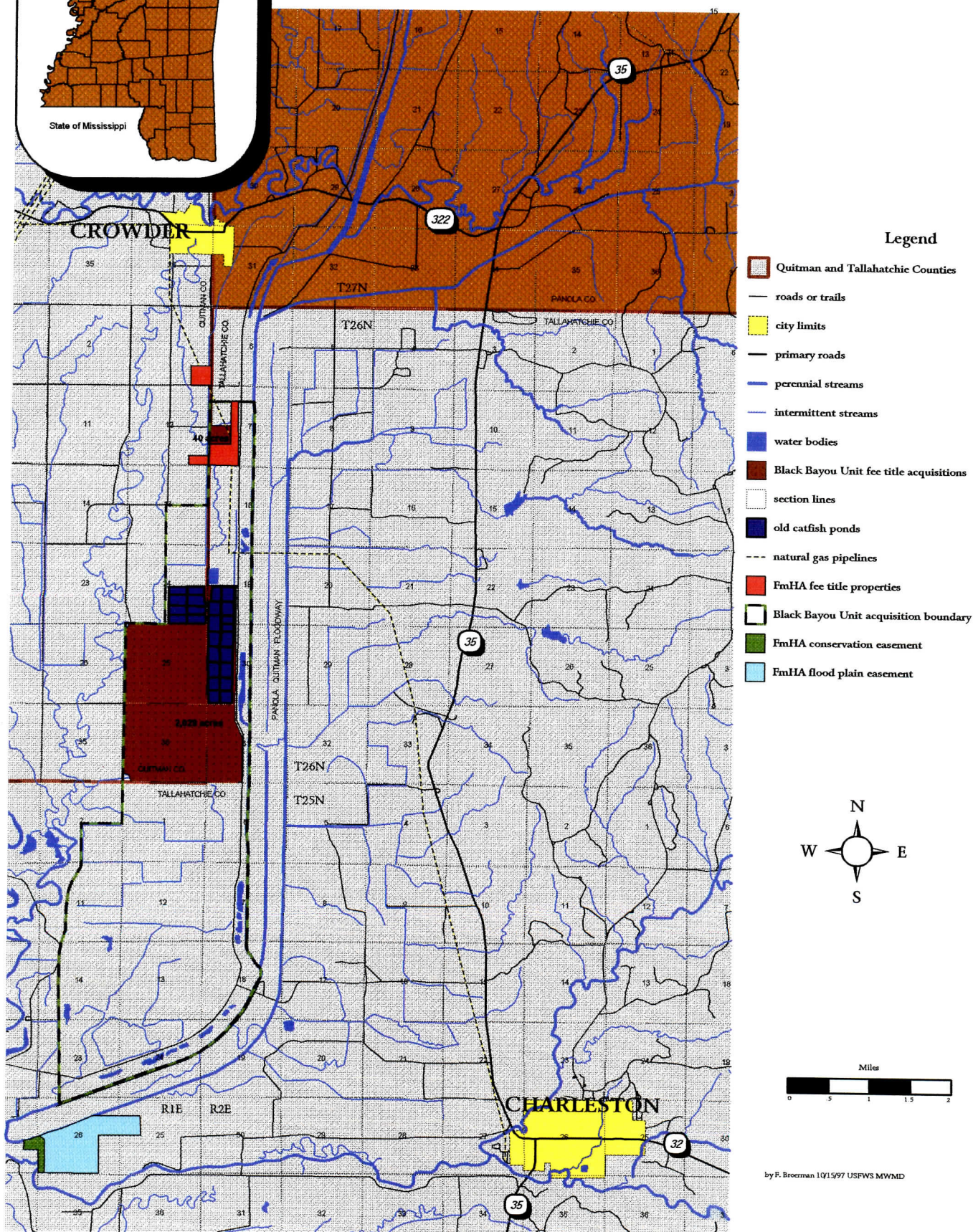


Figure 5. Black Bayou Unit of Tallahatchie National Wildlife Refuge.



SHOREBIRD SPECIES SEEN AT THE BLACK BAYOU UNIT OF TALLAHATCHIE NWR				
SPECIES	SPRING 1996	FALL 1996	SPRING 1997	FALL 1997
Black-bellied Plover	X	X	X	X
American Golden-Plover	X	X	X	
Semipalmated Plover	X	X	X	X
Killdeer	X	X	X	X
Black-necked Stilt	X	X	X	X
American Avocet		X	X	X
Greater Yellowlegs	X	X	X	X
Lesser Yellowlegs	X	X	X	X
Solitary Sandpiper	X	X	X	X
Willet			X	X
Spotted Sandpiper	X	X	X	X
Long-billed Curlew		X		
Ruddy Turnstone		X		X
Sanderling				X
Semipalmated Sandpiper	X	X	X	X
Western Sandpiper	X	X	X	X
Least Sandpiper	X	X	X	X
White-rumped Sandpiper	X		X	X
Baird's Sandpiper	X	X	X	X
Pectoral Sandpiper	X	X	X	X
Dunlin	X	X	X	X
Stilt Sandpiper	X	X	X	X
Ruff	X			
Short-billed Dowitcher		X	X	X
Long-billed Dowitcher	X	X	X	X
Common Snipe	X	X	X	X
Wilson's Phalarope	X	X	X	X
Red Phalarope		X		
TOTAL # OF SPECIES	TOTAL FOR	TOTAL FOR	TOTAL FOR	TOTAL FOR
SEEN ON SURVEYS	SPRING 1996	FALL 1996	SPRING 1997	FALL 1997
29	21	25	23	25
the 15 species highlighted in green are fairly common migrants				

Table 2. Shorebird species seen at the Black Bayou Unit of Tallahatchie NWR.



## HIGHLIGHTS

- Sharon Overstreet, from the FWS in Alaska came on board as our new Office Assistant after the position being vacant for over a year and a half (9b).
- A new District Manager, Pete Jerome, came on board in Atlanta after the position being vacant for over a year.
- Additional budget and FTEs were approved for Dahomey NWR.
- The station was awarded funding for it's NAWMP (1230) Special Project Proposal. As a result two 60 hp electric pumps were rewound and repaired, and seven water control structures were installed in the old catfish ponds at the Black Bayou Unit. These improvements will now allow us to intensively manage 115 acres for shorebird, waders and waterfowl (1a, 2a, Photos 4 and 6).
- The District receive the deed for the 1,656 acre Department of Transportation acquisition which is now a part of the Bear Lake Unit of Tallahatchie NWR (5a, 6h and Photo 9).



Photo 2. Deputy Project Leader Robert Barkley at the new boat ramp into Tippo Bayou. The ramp provides access to DOT land acquired in 1997. The new acquisition was opened for hunting for the 1997-98 waterfowl season.

- A boat ramp was installed into Tippo Bayou at the Bear Lake Unit of Tallahatchie National Wildlife Refuge and over 1,820 acres of the unit was opened to waterfowl hunting (Figure 4, Photos 2 and 9).
- Mississippi's first documented Northern Harrier Nest was found on the 320 acre Starr FmHA Fee Title Tract a mile north of Sledge in Quitman County (1a and Photo 3).
- Large wetland enhancement projects were completed on the 437 acre Whaley FmHA Tract in Marshal County and the 750 acre Starr FmHA Tract in Quitman County (2a).
- The station hosted two Lower Mississippi Ecosystem Law Enforcement Committee Meetings. Project Leader Stephen Gard and Special Agent Jim Pilgreen Co-Chair the Committee.
- The District received three FmHA easements on 24 acres from the USDA in 1997 (6h).

**Climatological Review - 1997 :** *1997 Climatological data summaries for northwest Mississippi were not available at the time of this writing. The Climate Highlights below were given by Dr. Charlie Wax the state Climatologist*

Temperatures (in Fahrenheit)

Average high

Average low

Highest recorded:

Lowest recorded:

Precipitation (in inches)

Total for the year

Greatest in 24 hours

**Climatic Highlights:** A slightly drier year than normal. The first freeze for the year was early by a couple of weeks. The summer was not as hot as normal. The highest summer temperature was 97°, normally several days during the summer reach 100°.

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# 1

## **Monitoring and Studies**

### ***1a. Surveys and Censuses***

Significant wildlife occurrences within the Mississippi Wetland Management District complex in 1997 include:

- A Northern Harrier nest with five downy young was discovered and photographed on the 320 acre Starr FmHA property on May 28. This was the first documented nesting record for this species in Mississippi. A general note documenting the nest and the circumstances in which it occurred has been submitted to a peer review journal for publication (Photo 3).
- A Yellow Rail was flushed on the 382 acre Trainor FmHA in Quitman County on November 4. Yellow Rail is very rarely seen in Mississippi and this sighting represents one of very few non-coastal records for the state.
- Mourning Warblers, which are considered rare transients in Mississippi, were seen at Dahomey NWR on May 16 and 20. This neotropical migrant does not nest in Mississippi but passes through the state in migration.
- On January 18, about 2,000 American White Pelicans were seen on rice fields within the acquisition boundary of the Bear Lake Unit of Tallahatchie NWR.
- Five pairs of least terns attempted to nest, and fledged at least one young, on the sand dunes at the Henson FmHA tract in southern Leflore County. The dunes were created by the ACOE with the spoil from their dredging operations along the Yazoo River. This is probably Mississippi's first documented nesting record for least terns in interior of the state, besides on islands of the Mississippi River.





Photo 3. Mississippi's first Northern Harrier nest found on a FmHA Tract in Quitman County.  
Photo by Fred Broerman

- Six bald eagles were seen on the 557 acre Walker Tract of the Bear Lake Unit of Tallahatchie NWR on January 14, when waterfowl concentrations were high.
- A pair of willow flycatchers nested at the Black Bayou Unit of Tallahatchie NWR for the second year in a row. This is the only known location where this species has been documented as nesting in Mississippi.
- An oldsquaw was seen on the catfish ponds of the Black Bayou Unit of Tallahatchie NWR on November 4. This bird is not often seen in Mississippi. An estimated 3,000 ring-necked ducks were seen here on November 25, which is a high concentration for this species.
- Three young of the year American bitterns were seen at the 750 acre Starr FmHA property on June 25. This species has not yet been documented as nesting in Mississippi.



**Aerial waterfowl surveys** were made of eight properties managed by the MWMD twice month during from October 30, 1996 through April 7, 1997. The flight path of these surveys and their results are shown in Figure 6 and Table 3 respectively. Waterfowl numbers were highest in December and January when an estimated 25,000 mallards and 11,000 American green-winged teal were seen on the surveys. Numbers of mallards and American green-winged teal sharply declined after January when at times gadwalls and shovelers were more commonly seen on the MWMD'S wetlands.

Four **Breeding Bird Surveys (BBS)** were conducted in May and early June by the staff biologist with some assistance from Volunteer Allison Broerman and the YCC Crew. These routes are setup to collect base line data on the distribution and relative abundance of birds that breed in northwest Mississippi. This is the second year the MWMD has conducted these surveys. Survey routes transect habitats and ecosystems typical of those found on the two refuges and the numerous FmHA properties managed by MWMD. The Tippo, Tallahatchie and Moon routes are located in the Mississippi River Alluvial Valley (the Delta) , and a fourth route, Grenada Lake BBS, is in the loessal hills of Grenada and Yalobusha Counties (Figure 7). The Moon route is a random route originally setup by FWS Breeding Bird Survey Office, now administrated by National Biological Service. The other three (Grenada Lake, Tallahatchie and Tippo) are "nonrandom" routes set up by MWMD. Data from all four routes are sent to the Breeding Bird Survey Office and are incorporated into their database which is used to analyze population trends of the birds which breed within the United States. Results from 1997's surveys are summarized in Table 4 . Table 5 compares species recorded in 1996 and 1997. Future plans include running the routes in the winter for a more complete data base for the birds occurring in the area.

For the past two years, considerable effort has been made by the MWMD'S wildlife biologist to conduct **shorebird counts** at the old catfish ponds at the Black Bayou Unit of Tallahatchie NWR (Photos 4 and 5). Volunteer Gene Knight (a local authority on birds) has also assisted in this effort, by sending us data from shorebird counts he makes while birding on the refuge. When the water levels are shallow, the old catfish ponds attract significant numbers of shorebirds. During the peaks of spring and "fall" (July-November) migrations, two or three counts were made a week. These counts are being done to monitor shorebird use at the ponds prior to actively managing them, and to document the chronology of spring and fall shorebird migration in northwestern Mississippi.

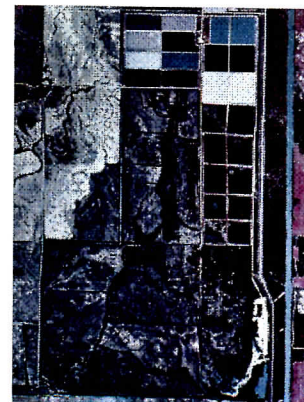
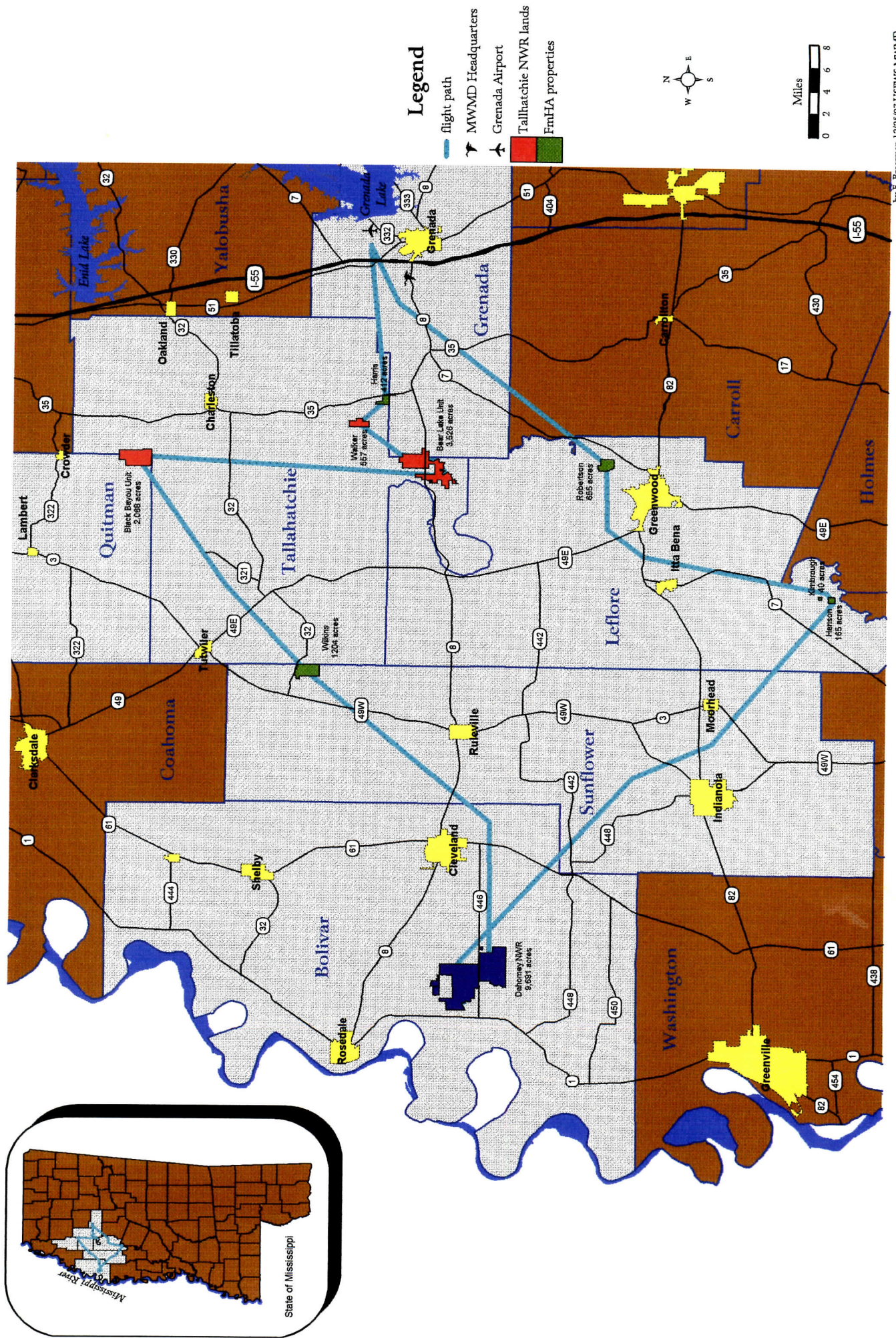


Photo 4. Old catfish ponds at the Black Bayou Unit of Tallahatchie NWR.





by F. Broeman, 12/25/97 USFWS MWMD

Figure 6. Flight path for 1996-97 waterfowl surveys conducted by Mississippi Wetland Management District (MWMD).



DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
30-Oct-96	Robertson	395	350			20	25					
30-Oct-96	Henson/Kimbrough	600	300		150		50		100			
30-Oct-96	Dahomey NWR	0										
30-Oct-96	Wilkins	0										
30-Oct-96	Tallahatchie NWR Black Bayou Unit	880	300	125	200	200	30	25				60
30-Oct-96	Walker	500	200		200			100				
30-Oct-96	Harris	200	200									
30-Oct-96	Tallahatchie NWR Bear Lake Unit	0										
30-Oct-96	DATE TOTAL	2,575	1,350	125	550	220	105	125	100	0	0	60

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
26-Nov-96	Robertson	706	526	175					5			
26-Nov-96	Henson/Kimbrough	580	400	150	30							
26-Nov-96	Dahomey NWR	300	155		145							
26-Nov-96	Wilkins	691	680				11					
26-Nov-96	Tallahatchie NWR Black Bayou Unit	4,810	4,210	250	175	165		10				
26-Nov-96	Walker	1,950	1,700	250								
26-Nov-96	Harris	8,800	6,100	1,500	1,000			200				
26-Nov-96	Tallahatchie NWR Bear Lake Unit	130	75		55					1,250		
26-Nov-96	DATE TOTAL	17,967	13,846	2,325	1,405	165	11	210	5	1,250	0	0

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
11-Dec-96	Robertson	1,301	1,000	200	100		1					
11-Dec-96	Henson/Kimbrough	1,230	700	200	100	60	100	40	30			
11-Dec-96	Dahomey NWR	450	300	100	50							
11-Dec-96	Wilkins	3,500	3,000	500						8,000		
11-Dec-96	Tallahatchie NWR Black Bayou Unit	15,060	12,000	1,200	1,000	800			60			105
11-Dec-96	Walker	6,800	1,500	5,300								
11-Dec-96	Harris	9,000	7,000	2,000								
11-Dec-96	Tallahatchie NWR Bear Lake Unit	0	no data	no data	no data	no data	no data	no data	no data	5,500		15
11-Dec-96	DATE TOTAL	37,341	25,500	9,500	1,250	860	101	40	90	13,500	0	120

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
01-Jan-97	Robertson	253	240		13							
01-Jan-97	Henson/Kimbrough	160	120			30			10			25
01-Jan-97	Dahomey NWR	320	300		15				5			
01-Jan-97	Wilkins	850	550	200			100			6,500	1,000	
01-Jan-97	Tallahatchie NWR Black Bayou Unit	13,200	10,000	1,000	400	600	150	250	800			20
01-Jan-97	Walker	18,500	7,000	10,000	400	500		600				
01-Jan-97	Harris	662	150	500		2			10			
01-Jan-97	Tallahatchie NWR Bear Lake Unit	725	630		25	20	50			3,000		
01-Jan-97	DATE TOTAL	34,670	18,990	11,700	853	1,152	300	850	825	9,500	1,000	45

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
24-Jan-97	Robertson	520	150		300	50			20			
24-Jan-97	Henson/Kimbrough	310	250			30	20		10			11
24-Jan-97	Dahomey NWR	0										
24-Jan-97	Wilkins	258	216		6	11			25			
24-Jan-97	Tallahatchie NWR Black Bayou Unit	9,150	4,000	3,400	200	225		250	1,075	1,500		35
24-Jan-97	Walker	3,150	2,600	450		100						
24-Jan-97	Harris	506	300			4		2	200			
24-Jan-97	Tallahatchie NWR Bear Lake Unit	765	494	75	14	92	50	15	25		200	
24-Jan-97	DATE TOTAL	14,659	8,010	3,925	520	512	70	267	1,355	1,500	200	46

Table 3. Results from 1996-97 Aerial Waterfowl Surveys of MWMD Properties.



DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
06-Feb-97	Robertson	640	182		413	35	10					
06-Feb-97	Henson/Kimbrough	650	130		250	130	140					5
06-Feb-97	Dahomey NWR	94	66			28						
06-Feb-97	Wilkins	696	370		171	100	30	25				
06-Feb-97	Tallahatchie NWR Black Bayou Unit	1,067	545		83	306		30	103		500	35
06-Feb-97	Walker	61	19		7	35						
06-Feb-97	Harris	255	100		50	100			5			
06-Feb-97	Tallahatchie NWR Bear Lake Unit	1,344	352	325	215	100	165	150	37			
06-Feb-97	DATE TOTAL	4,807	1,764	325	1,189	834	345	205	145	0	500	40

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
18-Feb-97	Robertson	762	262		150	350						
18-Feb-97	Henson/Kimbrough	985	275	150	300	200	60					
18-Feb-97	Dahomey NWR	106	73		18	15						
18-Feb-97	Wilkins	564	288	50	100	110		10	6	2,500		
18-Feb-97	Tallahatchie NWR Black Bayou Unit	702	239		153	277		5	28			5
18-Feb-97	Walker	330	100	60	16	144			10			
18-Feb-97	Harris	222	29			180		4	9			
18-Feb-97	Tallahatchie NWR Bear Lake Unit	1,137	291	300	176	68	102	200				10
18-Feb-97	DATE TOTAL	4,808	1,557	560	913	1,344	162	219	53	2,500	0	15

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
03-Mar-97	Robertson	58	10	0	44	4						
03-Mar-97	Henson/Kimbrough	1,103		150	500	200	250		3			12
03-Mar-97	Dahomey NWR	36	18		14				4			
03-Mar-97	Wilkins	1,036	7	150	579	300						
03-Mar-97	Tallahatchie NWR Black Bayou Unit	453	20		49	171		2	211			
03-Mar-97	Walker	6			2				4			
03-Mar-97	Harris	462	2	200	150	81			29			
03-Mar-97	Tallahatchie NWR Bear Lake Unit	541	97	200	75	90	48	6	25			3
03-Mar-97	DATE TOTAL	3,695	154	700	1,413	846	298	8	276	0	0	15

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
21-Mar-97	Robertson	96	22		64	8			2			
21-Mar-97	Henson/Kimbrough	1,125		150	450	500			25			4
21-Mar-97	Dahomey NWR	20			6	6			8			
21-Mar-97	Wilkins	905	10	150	331	408			6			
21-Mar-97	Tallahatchie NWR Black Bayou Unit	619	18		187	237			177			15
21-Mar-97	Walker	175	15	30	55	75						
21-Mar-97	Harris	79			2	50			27			
21-Mar-97	Tallahatchie NWR Bear Lake Unit	466		80	105	201			80			4
21-Mar-97	DATE TOTAL	3,485	65	410	1,200	1,485	0	0	325	0	0	23

DATE	REFUGE AND FmHA PROPERTIES SURVEYED	TOTAL # OF DUCKS	MALLARD	AMERICAN G-W TEAL	GADWALL	NORTHERN SHOVELER	AMERICAN WIGEON	NORTHERN PINTAIL	OTHER DUCKS	SNOW AND BLUE GEESE	GREATER WHITE FRONTED GOOSE	CANADA GOOSE
07-Apr-97	Robertson	5	3						2			
07-Apr-97	Henson/Kimbrough	6	2		4							
07-Apr-97	Dahomey NWR	30			14	4			12			
07-Apr-97	Wilkins	240	11		70	137			22			
07-Apr-97	Tallahatchie NWR Black Bayou Unit	279	10		75	95			99			6
07-Apr-97	Walker	91			14	46			31			2
07-Apr-97	Harris	0										
07-Apr-97	Tallahatchie NWR Bear Lake Unit	0										4
07-Apr-97	DATE TOTAL	651	26	0	177	282	0	0	166	0	0	12

Table 3. Results from 1996-97 Aerial Waterfowl Surveys of MWMD Properties.







SPECIES	Tippo 6/25/97	Tallahatchie 6/27/97	Moon 6/8/97	Grenada Lake 6/24/97	SPECIES	Tippo 6/25/97	Tallahatchie 6/27/97	Moon 6/8/97	Grenada Lake 6/24/97
pied-billed grebe			1		Carolina chickadee	8	11	4	9
least bittern	1	1			tufted titmouse	8	5		13
great blue heron	2	6		6	Carolina wren	24	25	17	9
great egret	10	25	1		blue-gray gnatcatcher	2	2		7
little blue heron		1			eastern bluebird	9		2	4
cattle egret		8			wood thrush	2	1		
green heron		3			American robin	1	5	20	
black-crowned night-heron		1			gray catbird	2			
yellow-crowned night-heron		1			northern mockingbird	23	32	32	--
wood duck	4	4	1	2	brown thrasher	1			
turkey vulture				1	loggerhead shrike	4	7		
red-shouldered hawk	1				European starling		2	50	
red-tailed hawk	2	3	1	4	white-eyed vireo	1		1	13
northern bobwhite	11	53	2	28	yellow-throated vireo				3
American coot		1			warbling vireo	1	2		
killdeer	38	30	58		red-eyed vireo				6
rock dove	3				pine warbler				2
mourning dove	61	78	85	11	prairie warbler				1
yellow-billed cuckoo	24	54	23	17	prothonotary warbler	6	14		6
great horned owl		1			Louisiana waterthrush				1
Chuck-will's-widow				1	common yellowthroat	22	26	14	15
chimney swift	1	1	11	12	yellow-breasted chat	19	34	24	47
belted kingfisher	2	4	1	1	summer tanager	1		5	14
red-headed woodpecker	2		2	3	northern cardinal	48	50	42	27
red-bellied woodpecker	27	38	12	19	blue grosbeak	8	5	1	2
downy woodpecker	5	5	2	3	indigo bunting	46	48	55	45
hairy woodpecker			3		painted bunting	1	4		
yellow-shafted flicker	2	4	1		dickcissel	70	67	76	
pileated woodpecker		1	1	1	eastern towhee		11	35	25
eastern wood-pewee		6		2	chipping sparrow				1
eastern phoebe	1				lark sparrow	1			
great crested flycatcher	4			3	red-winged blackbird	115	176	141	--
eastern kingbird	1	1		4	eastern meadowlark	10	20	7	4
horned lark	12	1	23		common grackle	15	59	63	3
purple martin	8	11	15	5	brown-headed cowbird	16	14	20	7
northern rough-winged swallow	2	2		2	orchard oriole	7	18	13	4
cliff swallow				33	Baltimore oriole	3	13	9	
barn swallow	13	29	16	9	American goldfinch				2
blue jay	21	29	29	39	house sparrow	8	39	45	4
American crow	2	9	3	76	number of individuals	742	1101	967	609
fish crow				6	number of species	56	56	43	55

Table 4. Results from BBS Routes conducted by MWMD in 1997. Neotropical migrants in blue.



SPECIES	Tippo	Tallahatchie	Moon	Grenada Lake	SPECIES	Tippo	Tallahatchie	Moon	Grenada Lake
pied-billed grebe		96	97		barn swallow	96	96	96	96,97
double-crested cormorant				96	blue jay	96	96	96	96,97
least bittern	97	97			American crow	96	96		96,97
great blue heron	96,97	96,97		96,97	fish crow				96,97
great egret	96,97	96,97	97		Carolina chickadee	96,97	96,97	97	96,97
snowy egret		96			tufted titmouse	96,97	96,97		96,97
little blue heron		97			white-breasted nuthatch				96
cattle egret		97	96		brown-headed nuthatch				96
green heron		96,97	96	96	Carolina wren	96,97	96,97	96,97	96,97
black-crowned night-heron		97			blue-gray gnatcatcher	96,97	97		96,97
yellow-crowned night-heron		97			eastern bluebird	96,97	96	97	96,97
white ibis*	96				wood thrush	96,97	96,97		96,97
Canada goose		96	96		American robin	96,97	96,97	96,97	96,97
wood duck	96,97	96,97	96,97	96,97	gray catbird	97			96,97
mallard		96			northern mockingbird	96,97	96,97	96,97	96,97
hooded merganser			96		brown thrasher	96,97	96	96	96
turkey vulture				97	loggerhead shrike	96,97	96,97	96	
red-shouldered hawk	97				European starling	96	97	96,97	96
red-tailed hawk	96,97	97	96,97	96,97	white-eyed vireo	97		97	96,97
wild turkey				96	yellow-throated vireo				96,97
northern bobwhite	96,97	96,97	96,97	96,97	warbling vireo	97	96,97		
American coot		97			red-eyed vireo				96,97
killdeer	96,97	96,97	96,97		yellow-throated warbler	96			
common snipe*	96				pine warbler				96,97
rock dove	96,97	96			prairie warbler				96,97
mourning dove	96,97	96,97	96,97	96,97	prothonotary warbler	96,97	96,97		97
yellow-billed cuckoo	96,97	96,97	96,97	96,97	Louisiana waterthrush	96			97
great horned owl	96	97			Kentucky warbler				96
barred owl	96	96			common yellowthroat	96,97	96,97	96,97	96,97
Chuck-will's-widow				96,97	yellow-breasted chat	96,97	96,97	96,97	96,97
whip-poor-will				96	summer tanager	96,97	96	96,97	96,97
chimney swift	96,97	96,97	96,97	96,97	northern cardinal	96,97	96,97	96,97	96,97
belted kingfisher	97	96,97	97	96,97	blue grosbeak	96,97	96,97	96,97	96,97
red-headed woodpecker	96,97	96	96,97	96,97	indigo bunting	96,97	96,97	96,97	96,97
red-bellied woodpecker	96,97	96,97	96,97	96,97	painted bunting	96,97	96,97		
downy woodpecker	96,97	96,97	96,97	96,97	dickcissel	96,97	96,97	96,97	
hairy woodpecker			97		eastern towhee	96	96,97	96,97	96,97
yellow-shafted flicker	96,97	97	97	96	chipping sparrow				97
pileated woodpecker	96	96,97	97	96,97	lark sparrow	96			
eastern wood-pewee		97		96,97	red-winged blackbird	96,97	96,97	96,97	96,97
eastern phoebe	97				eastern meadowlark	96,97	96,97	96,97	96,97
great crested flycatcher	96,97	96	96	96,97	common grackle	96,97	96,97	96,97	96,97
eastern kingbird	96,97	96,97	96	96,97	brown-headed cowbird	96,97	96,97	96,97	96,97
horned lark	96,97	96,97	96,97		orchard oriole	96,97	96,97	96,97	97
purple martin	96,97	96,97	96,97	96,97	Baltimore oriole	96,97	96,97	96,97	
northern rough-winged swallow	97	97		96,97	American goldfinch				97
cliff swallow				96,97	house sparrow	96,97	96,97	96,97	96,97
Astrisk (*) denotes a species that does not likely breed.					number of species	65	67	50	65

Table 5. Species list for BBS Routes conducted by MWMD in 1996 and 1997. Neotropical migrants in blue.



To date, 29 species of shorebirds have been recorded at the ponds, 15 of these are fairly common migrants (Table 2). Between 200 and 400 shorebirds are seen regularly at the ponds from mid-March to mid-June and then again from late July through late October. In late March of 1997 shorebird numbers peaked between 800-1,500. In 1996 and 1997 peak numbers for July, August and September ranged from 500-800 individuals (Figures 8,9,10 and 11)

It should be kept in mind that these shorebird numbers represent counts of ponds in which there has been only minimal management efforts and no pumping of water. Shorebird counts will be continued in 1998 and an attempt will be made to publish a paper summarizing these data in a peer-reviewed journal. In 1997 we repaired two electric pumps at the site and installed new water control structures in seven of the ponds (Photo 6). Plans for 1998 are to start more intensively managing the ponds for shorebirds. It will be interesting to see how our management practices affect the number of shorebirds occurring at the complex in 1998.



Photo 5. A typical summer day's shorebirds at one of the old catfish ponds at the Black Bayou Unit of Tallahatchie NWR. Photo by Fred Broerman.



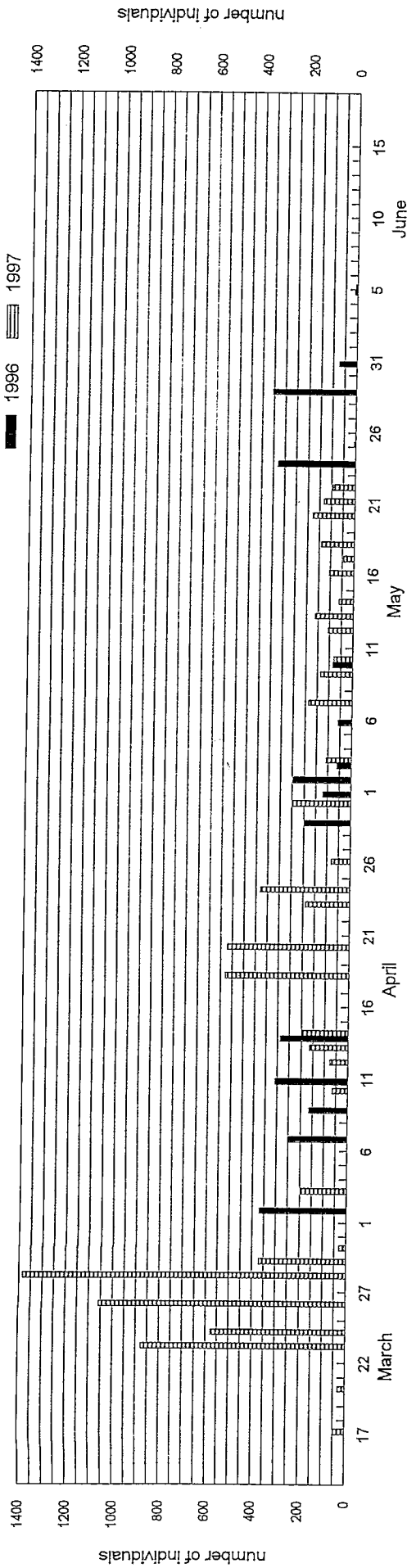


Figure 8. Number of individuals seen during spring shorebird counts conducted at the Black Bayou Unit of Tallahatchie NWR.

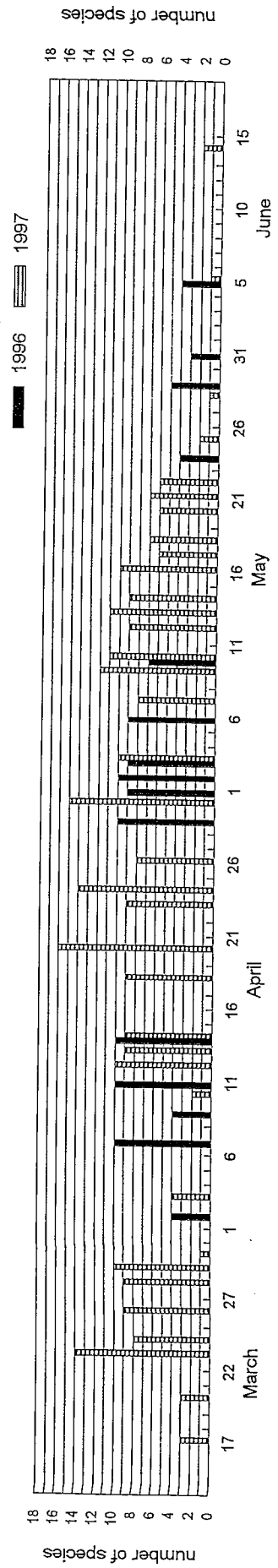


Figure 9. Number of species seen during spring shorebird counts conducted at the Black Bayou Unit of Tallahatchie NWR.

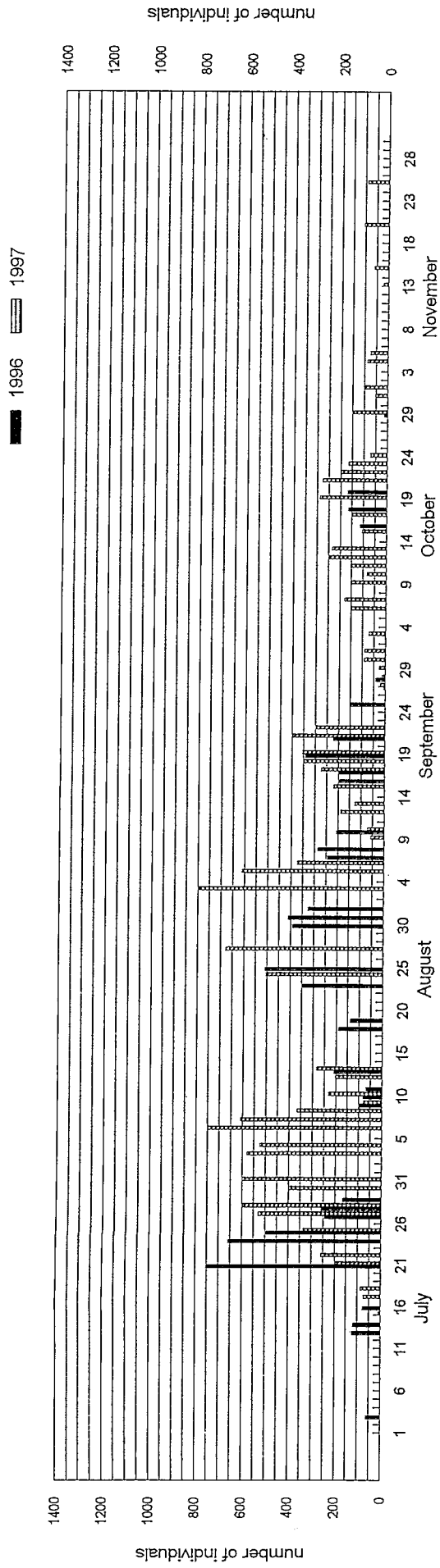


Figure 10. Number of individuals seen during summer and fall shorebird counts conducted at the Black Bayou Unit of Tallahatchie NWR.

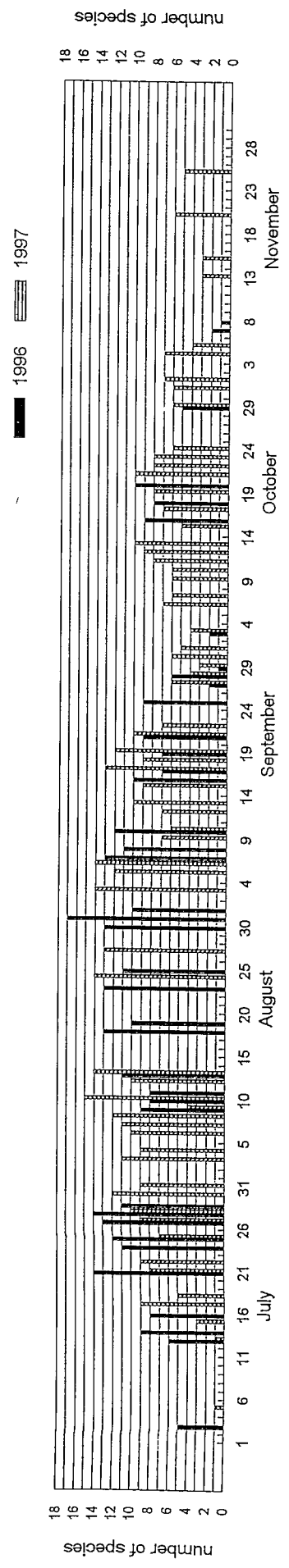


Figure 11. Number of species seen during summer and fall shorebird counts conducted at the Black Bayou Unit of Tallahatchie NWR.

## ***1 b. Studies and Investigations***

The Lower Mississippi River Ecological Assessment Study field crew from North Carolina State University completed their sampling on Dahomey and Tallahatchie NWRs this year. This large scale research project, funded by the Service, focuses on contaminated aquatic habitats at 26 National Wildlife Refuges in the Lower Mississippi River Ecosystem. A draft final report of their findings will be available in June of 1998.

Mississippi State University Ph.D. student, Jacob Bowman, conducted his second year of black bear research at Dahomey NWR in 1997. On May 20, he set up motion triggered cameras at four locations on Dahomey. Each site was baited with a 55 gallon plastic barrel filled with catfish remains compliments of a local catfish processing plant. No bears were photographed at the sites, but numerous dogs and a few coyotes were.

There were, however, three bear sightings at, or nearby, Dahomey NWR in 1997. John Horn a pilot for a local cropduster saw a large bear in the agriculture fields west of the Calico woods on May 8. On May 20, a five year old male bear was killed on Highway 1, south of Beulah. Also in May, Jim Clemons a Coop Farmer at Dahomey reported seeing a bear while pumping the refuge's rice fields on the south side of Highway 446.

Biologists with the Mississippi Gap Analysis Program established thirty long-term monitoring points at Dahomey NWR early this summer. Each point will be visited once each summer (from May 1 - June 15) to assess breeding bird populations starting in 1998. The points will also be sampled once every five years for vegetative characteristics, which began in 1997. Long-term monitoring points like these are being established on all NWRs in the state and other public lands in Mississippi.

On September 4, researchers from the University of Georgia collected five does at Dahomey NWR for the Southeastern Cooperative Wildlife Disease Study.

# 2

## Habitat Restoration

### ***2a. Wetland restoration: On-refuge***

A total of 974 acres were restored on seven FmHA fee and conservation easement tracts, 146 acres on Dahomey NWR, and 255 acres on Tallahatchie NWR (Table 6).

Unit	County	Acres Restored
Starr FmHA (750 acre tract)	Quitman	600 ✓
Scott FmHA (2 tracts)	Leflore	120 ✓
Savage FmHA (2 tracts)	Quitman	40 ✓
Castleberry FmHA	Tallahatchie	94 ✓
Whaley FmHA	Marshall	120 ✓
Dahomey NWR	Bolivar	146 ✓
Tallahatchie NWR, Bear Lake Unit	Grenada and Tallahatchie	140
Tallahatchie NWR, Black Bayou Unit	Quitman	115 ✓

Table 6. Wetland restoration projects completed on MWMD lands in 1997.



Photo 6. One of seven water control structures installed at the Bear Lake Unit of Tallahatchie NWR during the summer of 1997. With these structures in place and two pumps we are set up for intensive management of seven ponds for shorebirds and waterfowl. Photo by Fred Broerman.

## ***2b. Upland restoration: On-refuge***

Nothing to report.

## ***2c. Wetland restoration: Off-refuge***

A total of 519 acres were restored by completion of seven private land projects through the Regional Partners program. An additional 120 acres of winter wetlands were created by completion of a private land project through the Mississippi Partners Program (Table 7). This program provides water control structures for farmers willing to sign an agreement indicating they will manage their land for wintering waterfowl.



<b>Regional Partners Cooperator</b>	<b>County</b>	<b>Acres Restored</b>
Gray	Tallahatchie	70 ✓
Lott	Tallahatchie	40
Williams	Grenada	18
Campbell	Grenada	10
Strider	Grenada	165
Delta Marsh	Grenada	208 ✓
Blaine	Carroll	8 ✓
<b>Mississippi Partners Cooperators</b>	<b>County</b>	<b>Acres Restored</b>
Bailey (see Photo 7)	Quitman	120

Table 7. Private land projects completed in 1997 through Regional Partners and Mississippi Partners programs.



Photo 7. Quitman County Conservationist of the Year, Perry Bailey, at one of the seven water control structures he installed in 1997. The structures were provided through Mississippi Partners. Photo by Fred Broerman.

***2d. Upland restoration: Off-refuge***

Nothing to report.

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# 3

## Habitat Management

### ***3a. and b. Manage water levels and moist soils units***

Since the MWMD was established in 1989 and assigned administrative responsibility for Dahomey and Tallahatchie NWRs, its thrust has been the creation, restoration and enhancement of wetlands on public lands and private lands. Most of our work in creating and enhancing wetlands has been on properties managed by the Service, but often, we assist and work with diverse stakeholders such as Mississippi Department of Wildlife, Fisheries and Parks, Mississippi Department of Transportation, Ducks Unlimited, Delta Wildlife Foundation, the U.S. Army Corps of Engineers, U.S. Forest Service, private and cooperate land owners, and a local K-12 school's efforts in providing an outdoor environmental classroom program. Projects with these agencies and organizations are usually done through MOU's and habitat management agreements. With few exceptions, restoration of hydrology through the installation of stop-log water control structures and earthen levees have been the focus of the District's/stakeholder's efforts.

Specific to Service properties, the District actively manages nine management units comprising 1,200 acres for moist soil for wintering waterfowl or shorebirds. Complete water management including the use of seven wells is possible on 750 acres on four management units. Gravity drainage of artesian water is possible on two additional units consistent of 240 acres. Active management on the remaining 210 acres is dependent on rainfall.

Employing passive management on the remaining 1,950 acres enables the District to stretch our limited maintenance capability. On this acreage, stop logs remain year



round and are only removed when mechanical means, (bush hogging or discing), are necessary to set back succession of the moist soil plants.

We also maintain a 700 acre green tree reservoir at Dahomey NWR. This area is flooded every other year to avoid damage to the bottomland hardwood timber.

Total acres subject to managed water levels are summarized in Table 8. These acreages are those reported in the Districts 1990-1996 Annual Narratives for all projects completed on Service, other public and private lands.

Calender Year	Acres in Moist Soil Units	Acres in Green Tree Units	Acres Seasonally Flooded
1996	198	160	1,490
1995	430	160	310
1994	1,250	70	0
1993	1,095	840	60
1992	1,602	1,769	1,549
1991	595	600	3,415
1990	560	0	2,800
<b>Total</b>	<b>5,730</b>	<b>3,599</b>	<b>9,624</b>

Table 8. Acres of managed water levels in which MWMD has taken part in creating.

### **3c. Graze/mow/hay**

Nothing to Report.

### **3d. Farming**

Table 9, breaks down the acres farmed on each refuge. Note that in lieu of specific plantings, the refuge share may be 25% of all crops planted. Further, the acreage farmed by J&K Allison on the Bear lake Unit of Tallahatchie NWR has no crop share. This is part of an 1,650 acre tract acquired by the Mississippi Department of Transportation in 1997 as a mitigation bank. The deed came to the Service with an

existing farm lease that essentially reduces farmed acreage by 1/3 each year as the property is reforested.

Long range plans call for all the MWMD's non-irrigated acreage to be reforested.

Coop Farmer or Refuge	Acres in Rice	Acres in Soybeans	Refuge Share
Clemons	192	200	25%
Herbison	208	466	25%
<b>Dahomey NWR totals (1,066 acres are farmed)</b>	400	666	
Allison	307	937	n/a
Mabus		189	20 acres of corn
Strider	319	385	146 acres of corn
<b>Bear Lake Unit of Tallahatchie NWR totals (2,441 acres are farmed)</b>	626	1,511	166 acres of corn
Rottenberry	0	283	25%
Turner	0	384	25%
<b>Black Bayou Unit of Tallahatchie NWR totals (568 acres are farmed)</b>	0	667	

Table 9. A summary of MWMD's 1997 coop farming program.

### ***3e. Forest cutting***

Nothing to report.

### ***3f. Prescribed burning***

Nothing to report.

### ***3g. Control pest plants***

Nothing to report.

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# 4

## **Fish and Wildlife Management**

### ***4a. Bird banding***

MWMD's sixty-five wood duck boxes were checked in March and April of 1997 in an effort to band incubating females. As a result, nineteen female Wood Ducks and two female hooded merganser were banded (Photo 8).

### ***4b. Disease monitoring and treatment***

Nothing to report.

### ***4c. Reintroductions***

Nothing to report.

### ***4d. Provide nest structures***

The sixty-five wood duck boxes on MWMD properties were checked in March and April. Thirty-four of the boxes were used by wood ducks, two boxes were used by hooded mergansers, one box had a gray phase eastern screech owl and one of the boxes contained two wood duck eggs and a very large water snake! The remaining 27 boxes were not being used by wood ducks during our checks on March 12, 26, April 1, and 2. The boxes are scattered over a six county area and are located at Dahomey NWR, both Units of Tallahatchie NWR and on nine FmHA properties.



#### ***4e. Predator and exotic control***

Beavers and nutria continue to plague MWMD which requires continued repairs and maintenance. The beavers dam up the water control structures while the nutria burrow through the levees. Unplugging the structures is a very difficult endeavor, but can be done with a lot of muscle and sweat. The nutria burrows destroy the integrity of the levees which make mowing and general travel on the levees dangerous. The YCC crew and ROS Michael Junkin spent several summer days dismantling beaver dams at Dahomey NWR.



Photo 8. ROS Michael Junkin holding a hooded merganser found using one of our wood duck boxes. Photo by Fred Broerman.

# 5

## Coordination Activities

### ***5a. Interagency coordination***

As a result of the MWMD and Division of Law Enforcement joint effort and conviction of Gary's Flying Service in the Povall crop duster case, Project Leader Gard was appointed to the Environmental Advisory Board of the Agricultural Aviation Board which regulates all crop dusters in Mississippi.

Extensive efforts continue with the National Resource Conservation Service in reviewing Wetland Reserve Program projects and a joint effort to use Service personnel and equipment for restoration on selected projects. Several thousand acres of projects were reviewed this year and numerous meetings were held to finalize the joint restoration efforts.

Numerous Corps 404 permits were applied for and received by the MWMD this year for various private land and refuge projects.

joint efforts with the Corps of Engineers and Forest Service were continued this year. Some maintenance continues to be done and the Springdale and Wildcat brake projects are yet to be completed.

Through a joint effort with the Mississippi Department of Transportation (MDOT) and in coordination with the

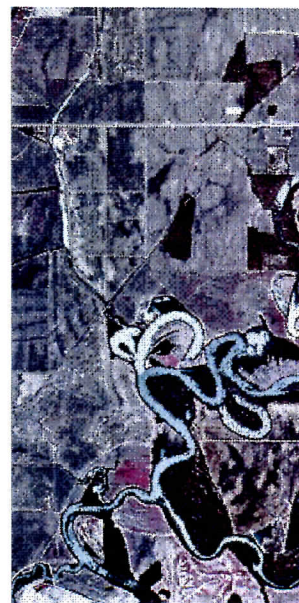


Photo 9. The 1,656 acre MDOT mitigation bank tract deeded to the Service early in 1977, doubled the size of the Bear Lake Unit.



Environmental Protection Agency and Corps of Engineers, the MDOT purchased a 1, 656 acre tract of land as a mitigation bank (Photo 9). The lands have been deeded to the Service along with development dollars as part of the Tallahatchie NWR. Additional coordination is taking place to acquire another 900 acre tract as an addition to the bank.

### ***5b. Tribal coordination***

Nothing to report.

### ***5c. Private land activities***

Over 100 landowners were contacted over the phone or in the field and were provided technical assistance. Approximately 45 wood duck boxes were distributed.

Private land projects were completed this year on the Diana Williams, Dr. Tom Holden, Delta Marsh Inc., Delta Wing Farms, Clarence Strider, Chad Gray, Harry Lott, Terry Thomas, Dr. Mike Campbell, and Kent Blaine. Most project were moist soil units with some additional tree planting and two were wood duck habitat projects.

Biologist Broerman attended Mississippi Partners for Wildlife meetings and submitted one proposal consisting of seven water control structures effecting approximately 120 acres. The proposal was submitted and approved (Photo 7).

The interest in private land projects is extremely high in is this area and could easily consume the entire staff.

### ***5d. Oil & gas activities***

Nothing to report.

### ***5e. Cooperative/Friends Organizations***

#### Friends of Dahomey

The Friends of Dahomey continues to organize and assist with management activities and volunteer efforts on Dahomey NWR. This year they provided comments and suggestions on the hunting and fishing program; they provided seed and aircraft time for planting food plots, significant political support for Dahomey funding and

staffing and are organizing an effort to provide assistance with handicapped hunting programs.

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# 6

## Resource Protection

### ***6a. Law enforcement***

The increasing land base managed by this office and the scattered locations of FmHA properties contribute to law enforcement problems. Vandalism, theft, fire and illegal hunting occur with some frequency on the FmHA transfer properties. Evidence of other violations on properties can be seen on each new visit to some sites. Easement violations are numerous. Table 10 summarizes 1997 law enforcement activities.

With Special Agent (SA) Jim Pilgreen located within the MWMD office in Grenada, our Migratory Bird Treaty Act (MBTA) enforcement activities have greatly increased. Refuge Officers from the MWMD assisted SA Pilgreen and other State and Federal Officers during the 1997 Mississippi state dove season and the 1996-97 and 1997-98 waterfowl seasons. Between refuge violations and MBTA violations, refuge officers made a notable showing in 1997.

During the first week in October, RO Barkley participated in OPERATION COMPLIANCE, a joint state/federal Waterfowl Task Force in and around the Great Salt Lake, Utah. The Task Force consisted of approximately 75 State Conservation Officers, Service Special Agents and Refuge Officers. The thrust of the operation was to deter early shooting and the use of lead shot on state/federal public hunting areas, compliance checks of duck stamps and state licenses and duck and goose bag limits and tagging requirements on private lands.

A similar effort had been undertaken in 1966, with over 450 citations issued during the opening weekend of the season. Although fewer hunters were out the opening weekend of the 1997 season, almost 400 citations were issued. RO Barkley said it



was different to work duck hunters at 4,500 feet elevation in marshes with no trees. Opening weekend reminded Barkley of the biggest dove hunt he ever saw except all the hunters were standing in six inches of water. Although it was a different habitat, the hunters still shot early, used some lead shot, forgot to sign their duck stamps and sky busted as long as the ducks were flying. All in all, a good trip with lots of lessons learned to be shared with RO's at MWMD.

Public hunting at Dahomey NWR includes big game hunts for deer and turkey, and small game hunts for squirrel, rabbit and raccoon.

The spring of 1997 provided to be another good turkey season at Dahomey NWR with six nice gobblers taken the opening weekend.

In an effort to promote youth hunting, the youth deer gun hunt took place November 15, one week prior to the opening of the Mississippi gun season. Participation was lower than expected with 21 youths participating.

Dahomey NWR archery season was slow due to thick vegetation and hot weather conditions. One buck and a doe were killed (Photo 10).



Photo 10. An eleven point, 230 pound buck with an 22 inch inside spread taken by bow hunter Kevin Rogers at Dahomey NWR in 1997.

The muzzle loader season continues to spark interest among hunters at Dahomey. During the 14 day season a total of 16 bucks and 11 does were taken.

The three day gun hunt was held December 18, 19, and 20, 1997. The three days sparked great interest. For the three day hunt a total of 12 bucks and 2 does were taken.

Perhaps the greatest law enforcement needs on Tallahatchie NWR stem from the area's high populations of wintering waterfowl. The Tallahatchie River Basin is the most frequented waterfowl hunting area in Mississippi.

During the furlough of 1996, RO Gard received a call regarding a hunter/trespass at the Tipppo bridge in the Southern Unit of the refuge. Upon arriving at the bridge, RO Gard heard three rifle shots immediately to the north on the refuge property. Approximately one hour later, a boat with one male dressed in camouflage clothing approached the landing with a deer on the front of the boat. As he approached, he apparently saw RO Gard and quickly exited the area. A few minutes later, the subject reached the landing again and was contacted by RO Gard and questioned. Neither the deer nor the rifle were found so he was charged with trespass. He was found guilty and ordered to pay \$150.00 in fines, \$10.00 to the crime victims fund and was sentenced to 10 days in prison which was suspended, and placed on one year probation.

On the morning of January 1, 1997, RO Gard and RO Denton were responding to a complaint of waterfowl hunting on the refuge. Upon arrival they found three-wheeler tracks entering the refuge. ROs Denton and Gard then followed the tracks through the refuge, across several farm fields then along the edge of a gravel road where they turned into a driveway. A three-wheeler was parked on the side of the house. After talking to the lady present at the house, it was determined that her sons had been hunting on the three-wheeler, one was the individual caught by PL Gard last year and was still on probation. After questioning the two, the three-wheeler was seized to collect blood samples.

Blood and tissue samples were also taken from the two gut piles found on the refuge. All samples were then shipped to the FWS Lab in Ashland, Oregon in an attempt to match the blood on the three-wheeler with the two deer taken on the refuge. At the time of this writing we are awaiting results from the blood analysis.

Waterfowl hunting was opened at Tallahatchie NWR for the first time this year. Hunting was permitted three days a week, mornings only.

<b>CODE</b>	<b>VIOLATION</b>	<b>NUMBER OF VIOLATIONS</b>
20.21(b)	Take with Shotgun Capable of Holding More Than Three Shells.	2
20.21(I)	Take Migratory game Birds with the Aid of Bait.	11
20.23	Take Migratory game Birds Before or After Legal Hours.	4
20.24	Take Migratory Game Birds in Excess of the Daily Bag Limit.	4
20.35	Possess or Transport in Excess of the Daily Field Limit of Migratory Birds.	6
20.72	Take Migratory Game Birds without a State License.	4
20.72	Take Migratory Game Birds without a State Stamp.	4
16 USC 718a	Hunt Migratory Waterfowl without a Federal Duck Stamp.	2
16 USC 718b	Hunt Migratory Waterfowl with unsigned Federal Duck Stamp.	1
26.21(a)	Trespass by person on a National Wildlife Refuge.	11
27.31	Operating a Vehicle on a National Wildlife Refuge in Violation of State Law.	3
27.31(h)	Blocking Refuge Road so that it obstructed free movement of other vehicles.	3
32.5	Fishing on a National Wildlife Refuge without a State License.	2
		<b>Total Violations 57</b>

Table 10. Law enforcement violations reported by MWMD staff during 1997.



PL (RO) Gard and RO Denton attended the first LE Refresher Training session and RO Barkley attended the second session at Quincey, Florida. Denton and Barkley gave a presentation at each session on the investigation and guilty plea of the owner of the flying service whose crop dusters were spraying the Povall FmHA property.

### ***6b. Wildfire preparedness***

Fire lanes are maintained around the perimeter, internal levees and roads on FmHA properties.

### ***6c. Manage permits and economic uses***

Nothing to report.

### ***6d. Contaminant investigation and cleanup***

Restoration continued on the 422 acre Povall FmHA tract. The property was illegally used by cropdusters who spraying agricultural chemicals and washed out chemical tank liquids on the property. We disced the property for the second time to expose the bare earth for a full summer prior to reforestation. This was done to break down any chemical residue prior to planting hardwoods.

Bureau of Alcohol, Tobacco and Firearms, Special Agent Billy Hancock and Explosive Enforcement Officer, Joseph Hanlin, removed a case of old dynamite and blasting caps found by RO Denton on the property the Service recently acquired in the North Unit of Tallahatchie NWR.

### ***6e. Manage water rights***

Nothing to report.

### ***6f. Manage cultural resources***

Nothing to report.

## ***6g. Federal Facility Compliance Act***

Nothing to report.

## ***6h. Land acquisition***

The 1,700 acre Mississippi Department of Transportation mitigation bank property that is contiguous with the South Unit of Tallahatchie NWR was deeded to the Service early in 1997 (Photo 9).

The USDA transferred three FmHA easements to the Service, which will be managed by MWMD. A six acre Conservation Easement, and two Floodplain Easements (three and fifteen acres) were received late in 1997. All three easements are located in Quitman County east of Highway 3 between Marks and Lambert.

## ***6i. Wilderness and natural areas***

Nothing to report.

## ***6j. Threats and conflicts***

Nothing to report.



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# 8

## Public Education and Recreation

### ***8a. Provide visitor services***

Public hunting at Dahomey NWR includes big game hunts for deer and turkey, and small game hunts for squirrel, rabbit and raccoon. Archery, primitive weapon and a three day gun hunt were allowed this year for deer hunting.



Photo 11. YCC enrollees Benjamin Fisk and Timothy Lane on the new handicapped accessible hunting blind they help build. Photo by Michael Junkin.

A new handicapped accessible hunting blind was designed and constructed on Dahomey NWR by MWMD staff and YCC crew ( Photo 11).

The recently acquired addition to the Bear Lake Unit of Tallahatchie NWR was opened to waterfowl hunting, on Wednesday, Saturday and Sunday mornings during the 1997-98 waterfowl season (Figure 4, Photos 2 and 9).

Sport fishing on Dahomey and Tallahatchie NWR's began following completion and approval of the Sport Fishing Plan. The program allows sport fishing for both game and rough fish and is regulated within the framework set forth by the State of Mississippi through the issuance of annual regulations.

## ***8b. Outreach***

Personnel from MWMD set up wildlife mounts and answered questions regarding birds and wildlife at a local Conservation Fair on April 22 and May 6, and during Earth Week Festivities on April 28 and 29, sponsored by the Grenada Lake Office of the U.S. Army Corps of Engineers. The Conservation Fair was visited by 356 fifth and six grade students, and 350 elementary students attended the Earth Week Festivities.

On April 24, over 2,300 local elementary students in 40 buses gathered at the University of Mississippi campus in Oxford to hear what the Banana Slug String Band had to say about taking care of the earth. The "Slugs" put on two concerts using music, puppetry, skits and audience participation to create a fun-filled learning environment. This interpretive outreach program was sponsored by MWMD along with the University of Mississippi, U.S. Army Corps of Engineers, NRCS, U.S. Forest Service and several other private conservation organizations.

ROS Junkin participated in the Kirk School Conservation Fair. He used the office mounts and displays to educate students on identifying animals common to our area and the food and habitat needs of each animal.

Biologist Broerman presented a program which explained the National Wildlife Refuge System, career opportunities in natural resources and MWMD's role, duties and responsibilities as a local office of the Service to 73 students in a general biology class and three advanced biology classes at Grenada High School. Our portable display was set up at the Elizabeth Jones Library in Grenada during National Wildlife Refuge Week. Many posters and FWS literature were distributed to the public through the display.



Biologist Broerman gave a presentation at the fall meeting of the Mississippi Ornithological Society. He highlighted the MWMD's role in enhancing/restoring wetlands and reforestation efforts on public land managed by the Service and private lands in northwest Mississippi. Management efforts on Dahomey NWR and the two units of Tallahatchie NWR were also explained.

Deputy Project Leader Barkley presented a program in conjunction with the ACOE and Mississippi State University to approximately fifty forestry technician students from Itawamba Community College. The program featured the MWMD's waterfowl development and reforestation efforts on the ACOE Askew Wildlife Management Area. Table 11, presents the results of two years of our five year program to monitor the success of our reforestation efforts at the site.

Deputy Project Leader Barkley served as judge at the Grenada High School Science Fair and Biologist Broerman served as a judge at the Grenada Middle School Science Fair.

Staff of the MWMD continued to assist the Northwest Mississippi Girl Scout Council with small projects at the Council's Camp Cedar Ridge which is located on Grenada Lake.

A Worldwide Web Site for Dahomey and Tallahatchie NWR's was created in 1997. Our two Worldwide Web addresses are:

<http://www.fws.gov/~r4eao/nwrdah.html>  
<http://www.fws.gov/~r4eao/nwrtal.html>

**AskeW Wildlife Management Area Reforestation Transects**

Transect	LAT	LON	Type of Planting	4/1/96 count	species found 4/1/96	11/4/96 count	species found 11/4/96	10/29/97 count	species found 10/29/97	TRACT	FIELD	10/29/97 COMMENTS
1	34.53449	-90.19889	hand planted acorns	13	flagged acorns	5	oak seedlings	26	7 oak, 12 sycamore and 7 elm seedlings		12 acres	tract in southeast part of the project, field colored red
2	34.53681	-90.20389	bare root seedlings planted with a tree planter	8	ash seedlings	6	ash seedlings	6	6 ash seedlings	2	24 acres	field colored yellow
3	34.53593	-90.20783	containerized seedlings, planted with tree planter	7	3 ash and 4 oak seedlings	6	3 ash and 3 oak seedlings	7	4 ash and 3 oak seedlings	18	17 acres	field colored blue
4	34.53626	-90.217	bare root seedlings planted with a tree planter	7	oak seedlings	6	oak seedlings	10	10 oak seedlings	17	31 acres	field colored yellow, north/south transect
5	34.53626	-90.217	bare root seedlings planted with a tree planter	11	oak seedlings	11	oak seedlings	14	14 oak seedlings	17	31 acres	field colored yellow, easterly/westerly transect
6	34.52413	-90.22285	bare root seedlings planted with a tree planter	14	oak seedlings	7	oak seedlings	8	8 oak seedlings	25	14.3 acres	field colored yellow
7	34.54233	-90.20795	bare root seedlings planted with a tree planter	8	oak seedlings	8	oak seedlings	13	5 ash and 8 oak seedlings	15	26 acres	field colored blue
8	34.53327	-90.20503	bare root seedlings planted with a tree planter	11	1 ash and 10 oak seedlings	8	oak seedlings	8	8 oak seedlings	2	10 acres	field colored yellow
9	34.53041	-90.20833	bare root seedlings planted with a tree planter	6	1 oak and 5 sycamore seedlings	6	sycamore seedlings	13	8 sycamore, 4 ash and 1 oak seedlings	27	50 acres	field colored yellow
10	34.54166	-90.1946	hand planted acorns	10	flagged acorns	0	oak seedlings	0**	oak seedlings		?	** Found 9 oak and 5 pine seedlings in this field outside the transect. Field colored in red. East side of HWY 3, at intersection of Truslow Road and AskeW Road
11	34.57301	-90.21738	containerized seedlings, planted with tree planter	4	oak seedlings	3	oak seedlings	5	5 oak seedlings	2	33 acres	field colored blue, cotton field
12	34.57268	-90.21941	hand planted acorns	18	flagged acorns	0	oak seedlings	0	oak seedlings	2	102 acres	field colored red
13	34.56571	-90.22064	bare root seedlings planted with a tree planter	8	oak seedlings	7	oak seedlings	8	8 oak seedlings	2	61 acres	field colored yellow

Table 11. AskeW Wildlife Management Area reforestation monitoring data.



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# 9

## Planning and Administration

### ***9a. Comprehensive management planning***

The MWMD Complex, to include Dahomey and Tallahatchie NWRs, was selected to begin comprehensive management planning in FY-98. The first planning meeting is expected in early 1998. Dave Erickson of the Regional Office is the coordinator for this effort. The station will be provided 10K for the effort in Fiscal Year (FY) 98.

### ***9b. General administration***

#### Funding - 1997

Program	Accounting Code	Allocated
Refuge Operations	1261	\$331,600
MMS	1262	\$55,000
Migratory Bird	1230	\$9,860
Fire	9252	\$2,000
Private Lands	1121	\$364,400
<b>TOTAL</b>		<b>\$762,860</b>

#### Personnel

In July, Sharon Overstreet, transferred to the MWMD as Administrative Officer from

the Migratory Bird Office in Anchorage, AK.

In August, Mike Junkin, Refuge Operation Specialist resigned and went to work in the private sector.

Promotions this year were earned by Fred Broerman, Biologist and Robert Barkley, Deputy Project Leader.

The staff of MWMD in 1997 are listed in Table 12 and pictured in Photo 12.

<b>Permanent Full Time Employees</b>	<b>Grade</b>	<b>EOD Date</b>	<b>Departure Date</b>
1. Stephen W. Gard Project Leader	GS-13	10/08/89	
2. Robert Barkley Deputy Project Leader	GS-12	05/19/92	
3. Fred Broerman Wildlife Biologist	GS-11	01/07/96	
4. Michael Junkin Refuge Operations Specialists	GS-9	05/20/91	08/02/97
5. Wayne Denton Refuge Officer	GS-8	05/28/95	
6. Sharon Overstreet Administrative Officer	GS-6	06/22/97	
7. Billy Brasher Equipment Operator	WL-8	04/21/91	
8. William "Hal" Jones Equipment Operator	WG-8	08/08/94	
9. Jimmy Perry <b>Intermittent</b> Equipment Operator	WG-8	7/10/95	

Table 12. Staff list for MWMD in 1997.





8. 6. 2. 7. 5. 9. 1. 3.

Photo 12 . Staff Picture.

#### Volunteer/Work Programs

A total of 8 volunteers contributed over 350 hours during 1997. The volunteer program is making significant contributions to operations and maintenance of MWMD, Dahomey and Tallahatchie NWRs.

#### Equipment and Facilities

A new backhoe and dozer were purchased at the MWMD in anticipation of a large additional workload on WRP lands in the coming years (Photo 13).

The station purchased two Dell Optiplex GS, Pentium 133 computers in 1997, and substantially increased the extended memory of three of Pentium computers which were operating sluggishly.



Photo 13. A John Deere 650B Dozer and 310E Backhoe were purchased in 1997. Photo by Fred Broerman.

Road rehabilitation started on Dahomey NWR, however after preparation of the ditches and road crown, the contractor was unable to deliver the clay gravel.

Three large culverts were purchased to replace a condemned bridge at Dahomey. Funds are expected in FY-98 for the installation.

Road rehabilitation was also started at Tallahatchie NWR. Several thousand tons of clay gravel were tail gate spread. The project was stopped due to wet weather and will be continued next year.



## **Credits**

**Barkley, Robert:** 2a, 2c, 3a, 3b, 3d, proof-reading

**Broerman, Fred:** Introduction, Highlights, Climate, 1a, 1b, 4a, 4d, 4e, 6h, 8b, 9b

**Denton, D'Wayne:** 6a, 6b, 6d, 6h, 8a, 8b

**Gard, Stephen:** 5a, 5c, 5e, 9a, 9b proof-reading